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All Prices Include VAT — PHOTODESK LIMITED

PHOTODESK OLYMPIC EDITION

PHOTODESK The studio quality image editing package is now available as a CD-ROM edition. It includes an HTML manual and in addition a CD of professional digital photos by David Cowell. It also includes the complete set of special effects plug-ins. This is the full CMYK/Layers version of Photodesk.

NOW ONLY £135.00

Upgrades: 2.xxL/Olymp: £100.00 2.xx/Olymp: £85.00 3L.xx/Olymp: £70.00 3.xx/Olymp: £20

Special Offer: Dave Cowells 2 CD Tutorials worth £49.98 with any Olympic or Olympic upgrade add only £25

BRAND NEW CD "STARTING POINTS" *£25* (Not just RISCOS or Photodesk, ideal primer for general photo editing, artwork generation on any platform.

OHP 2 £40 (upgrade from 1.xx £13)

A presentation Package on CD-ROM:

Version 2 now has Powerpoint export.

OHP is a screen-based presentation package for use with RISC OS computers

OHP lets you compile Presentations comprised of a number of graphics files, which you create or purchase outside OHP, and show them on your computer's VDU as a full-screen presentation. OHP has facilities to order the graphics, give them consistent styling, add sound effects and help you present them to an audience. If you have access to an electronic projector, you can use that to project the presentation onto a screen.

The read-only version, OHP_Show (which is Freeware) can be given away with your presentations or used on any number of computers; this makes OHP presentations an ideal way of communicating or advertising.

NEW Prices

Camera prices are constantly changing, please phone me for a quote/ latest price

C860L	£225
C960Z	£320
C990Z	£450
C2040Z	£525
C3040Z	£800
C2100UZ	£900

OLYMPUS Cameras

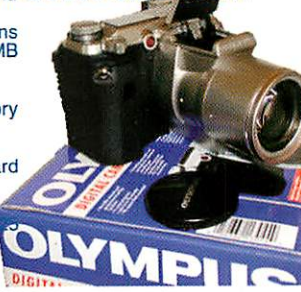
All cameras include PhotoLink software Worth £69



C3040 Zoom 3.3Megapixel (2056x1528 pixels) 3xzoom 2.5 digital zoom, sound and movie feature, takes lens attachments, Manual as well as automatic controls, internal flash with provision for external flash. 16MB memory card and remote control standard. £800 inc.VAT and RISCOS software

C2100 Ultra Zoom 2.2 Megapixel (1600x1200 pixels) 10xzoom, movie feature, Sound, Electronic TTL SLR with image stabilisation Manual as well as automatic controls, internal flash with provision for external flash. 16MB memory card and remote control standard. A real photographer's camera at £900.00 inc.VAT and

C2100 Ultra Zoom



C2040 Zoom 2.2 Megapixel (1600x1200 pixels) 3xzoom 2.5 digital zoom, movie feature, takes lens attachments, Manual as well as automatic controls, internal flash with provision for external flash. 8MB memory card and remote control standard.USB only needs card reader for RISCOS. :£525.00 inc.VAT

C990 Zoom 2.2 Megapixel (1600x1200 pixels) 3xzoom 2x digital zoom, internal flash with 8MB memory card £450.00 inc.VAT and RISCOS software

C960 Zoom 1.3 Megapixel (1280x960pixels) 3xzoom 2x digital zoom, internal flash with 8MB memory card £320.00 inc.VAT and RISCOS software

C860L 1.3 Megapixel (1280x960pixels) 2x digital zoom, internal flash with 8MB memory card £2 inc.VAT and RISCOS software

PRINTERS

NEW! **Canon S800** *£400*

All printers include PhotoReal software Worth £69

Canon S800 £400 including PHOTOREAL ...the brilliant new PHOTO printer from Canon. Capable of 2400x2400 dpi 6 separate ink tanks

Please ask me for a sample print and be prepared to be delighted:

PhotoReal for current printers £69.00 PhotoReal for discontinued printers £25



LOOK £69

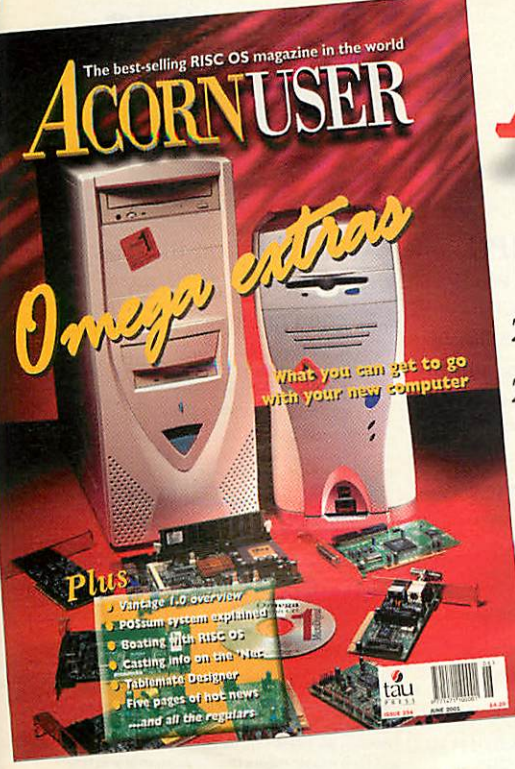
...for PHOTODESK with any Camera, Scanner, or Printer!

Hardware prices are constantly changing, please ask me for quotes on Cameras, Scanners, printers and other graphics devices.



April 2001

ACORN USER



Features

Regulars

July CD issue on sale 14th June 2001



It is crass to draw attention to one's own correctness when people's jobs are at stake – but it can safely be said that if you make enough predictions you're bound to be right some of the time.

My forays into prediction have been made fun of: Many moons ago, in an *Acorn Computing* editorial, I predicted the imminent death of Atari and Commodore as world computing powers (due to them trying to compete with consoles). A year later it had happened.

More recently I expressed serious doubts as to the viability of WAP phones. My views have been vindicated by the recent implosions of major mobile phone manufacturers and providers.

These companies spent millions building and promoting a product for which there was very little demand; it was just a cute idea and solved no genuine problem. Now they are suffering.

However, in this issue, two systems from down-under demonstrate that products can be created, with RISC OS as a base, for which there is genuine demand.

And there is no reason why this shouldn't be true elsewhere as well. RISC OS is compact, reliable and eco-friendly. These are real selling points.

We just need to use them.

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RiscStation 1999 2000
RISC OS compatible products for the new Millennium

0% Interest FREE credit (6 months) or
LOW cost finance or **leasing on all systems (from £5.30/week)**
inc. peripherals, software & 2/3 yr optional warranties (min. deposit 10%)

RiscStation



SCORCHER

The R7500 Scorcher from RiscStation arrives with a quality CD ROM Reader/ReWriter and media, providing a brilliant CD mastering platform for home & business.

from **£769** + Vat (£903.58) £29.52/month

Twindeck base

from **£799** + Vat (£938.82) £30.67/month

RiscStation Portable



Taking pre-orders NOW for the new portable

New Price to Be announced

Updated specification to be announced

Acorn



Acorn Kinetic RPC

Latest Acorn StrongArm series machine

70MB, 10GB HD, 40xCD

from **£999** +VAT (£1174) £34.51/month

Internet RPC 138MB, 30GB HD, 40xCD

£1,199 + VAT (£41.42 /month)

(includes internet pack)

MicroDigital Omega



Available soon the new RISCOS desktop

From **£999.00** +VAT (£1173.83 inc.)

287Mhz StrongArm, ATX Tower case

Full spec. on release

Free software pack

Above prices do not include monitors please see separate price list

RiscStation Lite R7500

From **£499** + Vat (£586.33)

Over £500 worth of FREE SOFTWARE

R7500 with 16MB memory & 4G Hard Drive			
R7500 base only	£499 + Vat	(£586.33)	(£19.16)
15" monitor system	£599 + Vat	(£703.83)	(£22.99)
17" monitor system	£639 + Vat	(£762.58)	(£24.53)
19" monitor system	£699 + Vat	(£880.08)	(£26.83)

The enhanced R7500 Plus with 50ns 64MB/ 10.2G			
Plus Base only	£579 + Vat	(£680.33)	(£22.23)
Plus 15" system	£679 + Vat	(£797.83)	(£26.06)
Plus 17" system	£719 + Vat	(£844.83)	(£27.98)
Plus 19" system	£779 + Vat	(£915.33)	(£29.90)

Add just £20 (+ vat) to R7500 Plus / Scorcher Tower to include a **Zip100 Drive**

RiscStation Palmtop



From only £143.83 + VAT

(£169.00 inc. VAT)

Basic Model	£143.83	£169.00
With Plus Pack	£169.36	£199.00
ClassRoom Pack (5)	£725.00	£851.88

8 MB Machine with 1/2 VGA Screen Built in WP, SS, Diary, Sketch, Jotter, Spellcheck and Internet WWW and E-mail s/w. Psion © Compatable.

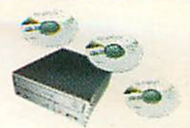
Acorn A7000 series



Classic RO3.7 / no CD	£449.00	(£527.58)	(£17.24)
Classic RO3.7 24x CD	£499.00	(£586.33)	(£19.16)
Odyssey Net RO3.7	£499.00	(£468.82)	(£19.16)
Odyssey Net RO4.0	£449.00	(£527.58)	(£17.24)
Odyssey CD	£549.00	(£645.08)	(£21.07)
Odyssey Primary	£599.00	(£703.83)	(£22.99)
Odyssey Secondary	£599.00	(£703.83)	(£22.99)
Odyssey Surf	£599.00	(£703.83)	(£22.99)

Above prices do not include monitors please see list

CD-ROM WRITERS



***"ScorchIT"* CD Writer Pack**

Upgrade your Acorn or RiscStation 7500 with a home CD authoring package as found in the RiscStation SCORCHER machine. This package contains the latest version of CD Burn, Writable and ReWritable media to get you started and one powerfull

8x8x32x CD ROM Writer/Rewriter.

only £189 + Vat (£222.08)

Now SCSI Version with 12x10x32x Re-Writer

only £285 + Vat (£334.88)

IDE 8x8x32x CDR/W	£139.00	£163.33
IDE 12x10x32xCDR/W	£199.00	£233.83
SCSI 12x10x32x CDR/W	£237.45	£279.00
CD-BURN	£49.00	£57.58
CD-SCRIBE 2	£39.00	£45.83

External versions Available

neTWORX neTWORX HD

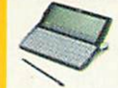


from **£399** + Vat (£468.83) £15.32/month

HD fr'm **£449** +Vat (£527.57) £17.24/mth

50 mip Arm7500 system with 16Mb memory, (HD version & Hard Drive) , built in ZIP drive support, Midi support, 3D sound, & sampler , 10baseT port as standard, RISCOS 4 as standard, High speed serial , High speed parallel, expandable to **256Mb** memory & hard drive / CD-ROM etc.

Psion PalmTops

Series 5 Revo	Series 5 MX	Series 7
£199 + VAT	£319 + VAT	£595 + VAT
(£233.83)	(£374.83)	(£699.13)
* 8MB memory WP, SS, Diary, Sketch, Jotter, Spellcheck	*16MB memory WP, SS, Diary, Sketch, Jotter, Spellcheck	*16MB memory WP, SS, Diary, Sketch, Jotter, Spellcheck

Complete Acorn A3020 (or A3000 if required) Acorn HD systems inc monitor **£99.00 + VAT** (£116.33)

A4000 and A5000 Systems also available

Refurbished Acorn 710



Bases from £199 + VAT

Systems with New 15" Monitor from £290 + VAT.

Kineti c (64MB) upgrades

New SA upgrade using SDRAM

Processor card (inc RO4)	**£399.00**	**(£468.82)**
Trade-Up 1 (from SA & RO4)	£299.00	(£351.32)
Trade-Up 2 (from RO4 only)	£349.00	(£410.07)
Trade-Up 2 (from SA & RO3.7)	£349.00	(£410.07)

128MB version extra £69.00 (£81.08)

StrongARM Rev "T" with RISC OS 4 **only £299** inc VAT

CD-ROM media

	ex VAT	inc VAT
CDR CD-ROM	**£0.84**	**£0.99**
CDR 10 pack	**£5.95**	**£6.99**
CDR 25 pack	**£12.76**	**£14.99**
CDR 80min 10 pck	£7.65	£8.99
CDR 80min 25 pck	£17.01	£19.99
CDR/W CD-ROM	£1.28	£1.50
CDR/W 10 pack	£11.00	£12.93
5.2Gb DVD RAM	£25.00	£29.37

CD-ROMS



SCSI 8x
4way **Autochanger**
£75.00 + vat (£88.13)

52x IDE	£34.00	£39.95	40x SCSI	£65.00	£76.37
48x IDE	£30.00	£35.25	32x SCSI	£59.00	£69.33

External CD ROMs

48x IDE (with cable)	£85 + VAT
40x SCSI I(with cable)	£115 + VAT
40x SCSI II(with cable)	£120 + VAT
6x 40x CD Tower (+HD space)	£449 + VAT

IDE Zip / LS120 require s/w drivers or RiscStation style hardware support. **Parallel Drives** inc. RISCOS Software

LS120 IDE int	#	£55.00	£64.62
Zip 100 IDE int	**#**	**£55.00**	**£64.62**
Zip 250 IDE int	**#**	**£85.00**	**£99.87**
Zip 250 parallel ext.	#	£129.00	£151.58
Zip 250 SCSI ext.	#	£105.00	£123.37
JAZ 2GB SCSI ext.		£235.00	£276.12
JAZ 2GB Parallel ext.		£299.00	£351.32
Orb 2.2 GB IDE		£165.00	£193.87
Orb 2.2 GB Parrallel		£199.00	£233.83
LS120 Media		£4.00	£4.70
Zip 100 Media		**£7.65**	**£8.99**
Zip 100 Media 5 pack		**£34.03**	**£39.99**
Zip 250 Media		**£10.63**	**£12.49**
Zip 250 Media 5 pack		**£50.00**	**£58.75**

Removable Drives

4GB IDE Pullman	**£79.00**	£92.83
4GB Parrallel Pullman	£139.00	£163.33
4GB P'llel Datasafe	£119.00	£139.83
10GB IDE Pullman	**£95.00**	£111.62
10GB P,llel Pullman	£155.00	£182.12
10GB P'llel Datasafe	£135.00	£158.62
20GB IDE Pullman	**£105.00**	£123.37
20GB P'llel Pullman	£165.00	£193.87
20GB P'llel Datasafe	£145.00	£170.37
650MB PD Media	£19.00	£22.32
750Mb Nomai	£38.00	£44.65
	£58.00	£68.15
2 GB Jaz Media	£68.00	£79.90
2.2 GB ORB Media	£32.00	£37.60

MP3 CD Player



Plays back ordinary audio CDs, CD-R and MP3CDs (which can hold 160-200 MP3 tracks each).

Ideal with CD-ROM Writers

only £69.00 exc. VAT

(£81.08 inc.)

Internet Packs from **£85 + VAT (£99.88)** available for all machines include Internet software, *ISP* setup and *56K* modem

3 yr Warranty on ALL Acorn MEMORY & Upgrades

Upgrade	A310	A440	A4X0/1	A540	A3000	A3010	A3020	A4000	A5000
1-2MB	-------	-------	£25	-------	£15	£15	---------		---------
2-4MB	-------	-------	£50	-------	---------	---------	£40	£40	£45
1-4MB	£35 *	-------	£75	-------	£35	£45	---------	---------	---------
4-8MB	£55	£55	£55	£45	£55	---------	---------	---------	£55 *#
RISCOS Carrier	£19 *	£19 *	---------	-------	---------	---------	---------	---------	---------
RISCOS 3.1	£25	£25	£25	£25	£25	---------	---------	---------	£25
MEMC1a	£20	£20	---------	-------	---------	---------	---------	---------	---------
Arm3(33)	£45	£45	£45	-------	£45 *	---------	---------	---------	---------
Arm3(25) & FPA10	£85	£85	£85	-------	£85 *	---------	---------	---------	---------
FPA10	£45	£45	£45	?		---------	---------	---------	£45
VIDC/IOC	£20	£20	£20	£20	£20	---------	---------	---------	£20

N.B. All above prices exclude VAT at 17.5%

* Re-work if required £25 (£29.38) # not applicable to 33MHz A5000

RISCOS MEMORY

LOWER PRICES!

EDO memory Suitable for RPC, RiscStation & Mico

Also A7000	Ex VAT	Inc VAT
8Mb SIMM EDO/FPM	£8.51	£10.00
16Mb SIMM EDO/FPM	£25.00	£29.37
32Mb SIMM EDO/FPM	£35.00	£41.12
64Mb SIMM EDO/FPM	**£45.00**	**£52.87**
64Mb SIMM RS 50ns	**£79.00**	**£92.83**
128Mb SIMM from	£129.00	£151.58
1Mb VRAM	£25.00	£29.37
2Mb VRAM	£75.00	£88.12
1-2Mb (exchange)	£65.00	£76.37
64MB 133M SDRam	£22.00	£25.85
128MB 133M SDRam	£30.00	£35.25

Flash memory for Cameras / Osaris etc.

8MB	£20.00	£23.50	64MB	£49.00	£57.58
16MB	£25.00	£29.37	128MB	£95.00	£111.62
32MB	£29.00	£34.08	256MB	£195.00	£229.12

Smart Media Flash for Cameras

32MB	£25.00	£29.37
64MB	£45.00	£52.87

NETWORKING

ETHERNET INTERFACES

	Ex. VAT	Inc VAT
A3000 int. 10base2 or T, Access+	£89.00	£104.58
A400/A5000 10base2 or T Access+	£89.00	£104.58
A400/A5000 10base2 & T Access+	£99.00	£116.33
A3020 10base2 Access+/ext. MAU	£94.00	£110.45
A3020 10baseT Access+/etx. MAU	£94.00	£110.45
Risc PC/A7000 10base2 & T Acc+	£99.00	£116.33
Risc PC/A7000 10baseT Access+	£94.00	£92.83
Ant Access + ROM upgrade	£10.00	£11.75

Cables

2M	£2.00	£2.35
3M	£3.00	£3.53
5M	£5.00	£5.87
10M	£9.00	£10.58
20M	£15.00	£17.62

State 10base2 or Cat5 UTP any size made to order

Network Hubs *(more available)*

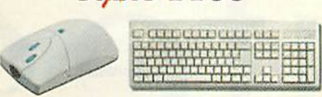
	Ex VAT	Inc VAT
8 Port 10bT +1 10b2	£35.00	£41.12
8 Port 100 *special*	£89.00	£104.57
8 Port 100/10 Auto	£99.00	£116.32
18 Port 10 16T+ 2BNC	£75.00	£88.12
16 Port 100/10 Auto	£229.00	£269.07
16 Port 100/10 Auto (inc 3 port switch)	£269.00	£316.07
24 Port 100/10 Auto	£299.00	£351.32
24 Port 100 *special*	£249.00	£292.57

We supply and / or install all network components please ring for your requirements

NETWORKING SOFTWARE

Topcat site licence	£489.00	(£587.50)
NTfiler site licence	£97.00	(£113.98)
Omniclient site licence	£489.00	(£587.50)
Lanman98 single user	£35.00	(£41.13)
Win95FS single user	£35.00	(£41.13)
Lanman or Win95FS 10 user site licence	£110.00	£129.25
Lanman or Win95FS 20 user site licence	£156.00	£183.30

Cable-Free



Mouse for RiscStation & A7000 /Mica £19.95 inc.
Mouse for Risc PC / A5000 /A400 etc. £39.95 inc
Keyboard for RiscStation, RPC /A7000 £29.95 inc.



Trackball for R7500 / A7000 £19.95 inc
Trackball for RPC £42.95 inc

	Ex. VAT	Inc. VAT
A7000 / Riscstation Mouse NEW	£10.00	£11.75
Riscstation infra-red Mouse NEW	£21.27	£24.99
Riscstation Ergo Trackball NEW	£16.98	£19.95
Infra-red Keyboard (PS/2 & AT)	£25.49	£29.95
Lower CASE Keyboard (PS2)	**£29.78**	£34.99
A400/A5000 replacement K/brd	£59.00	£69.33
A400/A5000 Ergo Keyboard	£69.00	£81.08
A4 replacement keyboard	£49.00	£57.58
A4000 Keyguard (special needs)	£25.00	£29.37
A3000 /A300,400,500 Keyguard	£25.00	£29.37

"Accent" Midi upgrades



Midi Break-out cable with driver sw £15 + VAT
Yamaha DB51 XG Wavetable Card, Midi cable & drivers £99 + VAT
Yamaha DB51 XG Wavetable Card, Midi cable, drivers & Evolution MK149 keyboard £199 + VAT

Podule "MidiMax Card	£79.00	£92.83
MiniPodule Midi card (A3x00)	£69.00	£81.08
Refurbished Midi card A3x00	£20.00	£23.50

Desktop FAX MODEMS

56k x2/V90 3Com USR	£99.00	£116.32
56k Flex/V90 (Rockwell)	**£49.00**	**£57.58**
56k V90 Internal for RS	**£49.00**	**£57.58**
ISDN modem (external)	£79.00	£92.83
!Dialler	£17.02	£20.00
Oregano	£49.00	£57.58
Webster XL	£21.28	£25.00
Messenger Pro	£25.53	£30.00
ArcFax Fax software	£26.38	£31.00





Bare Phoebe cases (no electronics sorry) Only £25.00 (£29.38 inc)

3.5" IDE Hard Drives

	Ex VAT	Inc VAT
210Mb	*£25.00*	*£29.37*
500MB	*£45.00*	*£52.87*
4.3GB #	£59.00	£69.33
10.2GB *	£70.00	£82.25
20.1GB *	**£77.00**	**£90.48**
30.5GB *	£89.00	£104.57
40.0GB *	**£99.00**	**£116.32**
60.0GB *	£149.00	£175.08
80.0GB *	£199.00	£233.83

\# requires RISCOS 3.6 /3.7 * requires RISCOS 4 or Partitioning s/w for only £25.00 + vat

SCSI HARD DRIVES

2.0 Gb	£69.00	£81.08
4.3Gb (5400 or 7200)	£99.00	£116.32
9.1Gb (7200 rpm)	£145.00	£170.37
18.6Gb (7200 rpm)	£199.00	£233.83
36.4Gb (7200 rpm)	£349.00	£410.07
73.4Gb (7200 rpm)	£738.00	£867.15

A3020 / A30X0 & I/F

	A3020 Ex VAT	A3020 Inc VAT	A30X0 & I/F Ex VAT	A30X0 & I/F Inc VAT
170MB	£39.00	£45.83	£89.00	£104.57
340MB	£49.00	£57.58	£99.00	£116.32
500MB	£59.00	£69.33	£109.00	£128.08
810MB #	£79.00	£92.83	£109.00	£128.08
1.0Gb #	£99.00	£116.32	£129.00	£151.58
2.1GB #	£109.00	£128.08	£139.00	£163.33
4.3GB #	£129.00	£151.58	£159.00	£186.83

A30X0 version includes CD ROM i/f which can be used in A3020 or A4000. For external A3000 i/f add £20.00 +VAT # includes partitioning software

COLOUR SCANNERS

All scanners inc RISCOS Software



P'llel Mustek 600dpi	£99.00	£116.32
Mustek A4 1200dpi	£149.00	£175.08
Epson Perfection	£212.00	£249.10
Epson Perf'n Photo	£275.00	£323.12
Epson Photo unit	£85.00	£99.87
Ep'n GT9500 p'll /SCSI	£149.00	£175.08

ImageM & Twain also available separately

Hardware Bargains		exc VAT	inc VAT
A3000 2Mb bases from	#	£35.00	£41.12
A3020 2Mb HD bases from	#	£79.00	£92.83
A4000 2Mb bases from	#	£127.00	£149.22
A5000 4Mb bases from	#	£199.00	£233.83
SCSI 4x6x autostacker (new)		£115.00	£135.13
A5000 /A400 Ext CD-ROM	#	£42.00	£49.35
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A3000 PSU's	#	£20.00	£23.50
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ANT

Who's got the suite?

ANT Limited has announced an agreement with RISCOS Ltd whereby RISCOS has acquired the rights to take on all future sales, development and end-user support of the *ANT Internet Suite*, which will now be called the *RISC OS Internet Suite*.

The Internet Suite is a complete dial-up network package consisting of the RISC OS *Fresco* Web browser, FTP client and Marcel Email. The *Fresco* Web browser is the only component of the Suite for which control will remain with ANT and is not included in the agreement.

Simon Woodward, President and CEO of ANT Limited added, "The handing over of the ANT Internet Suite to RISCOS Ltd is a very logical progression of the reason for which RISCOS Ltd was set up.

RISC OS will be integrating some of the key components of the newly named *RISC OS Internet Suite* into future versions of RISC OS, and then allow users to make their own choice of web browser and email client. Meanwhile ANT will continue its own development of *Fresco* Web browser and *SimplEmail* technology for the embedded market space.."

The announcement will, in the long run, make Internet connections simpler for users although some developers may need to make changes to what will presumably become the de facto standard. How much of the ANT (sorry — read RISC OS) Internet Suite will be incorporated into RISC OS itself is not yet clear and that is obviously crucial for developers.

Support for the ANT Suite itself has been continued by Paul Vigay after a difficult period that was initiated by ANT opting out of direct sales and support of the Suite. Many users had assumed that Paul's valiant efforts were a graveyard shift and some had given up on the product assuming that, in such an area, development needed to run in order to stand still.

It seems likely that some will be dusting off their archived copies of the software and there will be much speculation about the impending upgrades. It's known that the embedded version of the Suite has progressed beyond the RISC OS version and that copies of a later, but unreleased, desktop version has been available for some time. We don't (yet) know what the upgrade will consist of — there will be much guess work but we will try to bring you the facts in next month's *Acorn User*.

Upgrades from the current *ANT Internet Suite* to the new *RISC OS Internet Suite* will be available from RISCOS Ltd both separately and as part of the new RISC OS Select scheme (more on that next issue). Availability of the first update is expected at the end of June 2001.

RISC OS goes portable...

Since its public appearances at previous RISC OS shows, RiscStation's proposed laptop case has been discontinued by its manufacturer, preventing that particular design from being used in the production of their new laptop.

However all is not lost, as the RiscStation development team has recently returned from discussions with manufacturers in the Far East and have sourced an alternative laptop case which is at the beginning of its life-cycle, thus ensuring as long a period of availability as possible.

At the time of going to print, the case manufacturer has just given final approval for the tooling of the case moulding. RiscStation are unable to release details of the new case at present but the unit will be smaller and lighter than previously expected, and this will be reflected in the specification. As soon as the details are released from NDA, pictures, specification and pricing will be made public.

Interest in the new RISC OS laptop has been exceptionally high and it is anticipated that anyone wanting to place a firm order for the new laptop will be able to do so at the Wakefield show. By then RiscStation will have much more detailed information including expected case delivery times.

CTA Direct 168 Elliot Street Tyldesley Manchester M29 8DS Tel : +44 (0) 1942 797777 Fax : +44 (0) 1942 797711



Millennium bugged

Aaron Timbrell of iSV made a rod for his back when he called his next version of *DrawWorks Millennium*. This was in the last century, speaking correctly, and when we actually arrived in the 21st century iSV cleverly called the next version 'New Millennium'. Some of us waited with bated breath. Would they be able to keep the Millennium tag? Would they *disappoint* us with 'New Millennium 2'?

At last, all has been revealed. The new version of DrawWorks is 'DrawWorks Third Millennium'.

Of course it does all nicely highlight the fact that iSV are regularly adding to their already excellent product and *dw3* (no I'm not going to type it all out again) looks to have some interesting new features. iSV are advertising it as compatible with future versions of RISC OS so they've obviously been working with the 32-bit development tools provided by Pace and RISC OS.

That's good news for the future. For the present they're advertising substantial speed increases and more features to enhance the ease of using *dw3*. Like the earlier versions of *DrawWorks*, *dw3* uses and extends the *Draw* application producing standard drawfiles but with features never envisaged by the original designers of *Draw*.

dw3 also has:

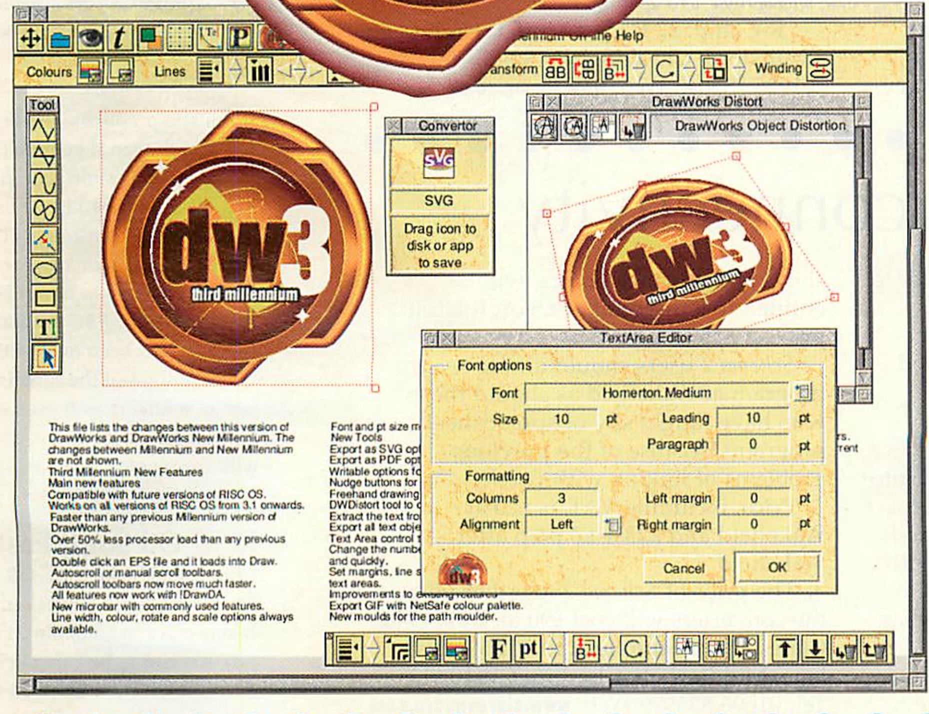
- SVG and PDF (using GhostScript) export;
- nudge buttons;
- a freehand drawing mode;
- distort by dragging feature;
- text extraction;
- text area manipulation;
- EPS files load into Draw simply by double-clicking on the file;
- Extensions and improvements to moulding and shadowing;

and much more. Needless to say we're looking forward to experimenting with *dw3*.

The *DrawWorks Third Millennium* upgrade CD costs only 10ukp (plus carriage of 1.50ukp in the UK and 3.50ukp overseas) — but note that this is an upgrade only. You'll need one of the previous Millennium products before the upgrade will work.

The release leaves a number of critical questions unanswered. What will the next version of DrawWorks be called? and What on earth will Aaron find to upgrade this product?

iSV can be contacted at: 86 turnberry, Home Farm, Bracknell, Berks RG12 8ZH. Tel: 01344 455769 E-mail: atimbrell@aol.com Web: **www.isvproducts.co.uk**



Working for art

As we write this we are all looking forward to the Wakefield Acorn RISC OS Show on the 19th/20th May. There has been much speculation about the hardware — and no we can't tell you exactly what will or will not be on show — but it looks like there will be particular interest in software that may very well be available for sale.

Cerilica have been working very hard to ensure that *Vantage* is finally available in May and Martin Würthner has just hinted that there may be a new tool for *ArtWorks*. "If anyone wants to see which of Xara X's new tools will be the first to be released for ArtWorks, they can do so at Wakefield."

In the meantime Martin has produced and issued upgrades to a number of his ArtWorks tools which are available via his Web site: **www.mw-software.com**





Message in a bottle

R-Comp have now released *Messenger Pro 2*. This is a significant upgrade on their previous *Messenger Pro* software which, confusingly had versions labelled v 2.10 etc. The new program starts at v2.50 and R-Comp promise to get the name and version number in line by the time they get to *Messenger Pro 3*.

Messenger Pro 2 is an e-mail and news client providing facilities for sending and managing electronic mail and news messages used on the Internet. Among other new features the new program:

- Allows messages to be deferred when partial written for completion later;
- Has simplified send mail and news windows (among others) which make getting to grips with the software easier but allows experienced users access to advanced features;
- Includes improved threading with tree-lines shown graphically;
- Can show which users/folders have received new mail in a 'new arrivals' window;
- Has improved facilities for multiple users and multiple e-mail addresses;
- Links to other articles can be automatically retrieved through DejaNews and Web links transferred to a list for use later when they can be triggered together or shown in a Web window and selected as required;
- Users now have more control over how messages are displayed;
- *DialUp* can be controlled from *Messenger Pro 2*.

There is a 48-page, spiral bound manual and users of *Messenger Pro* prior to version 2.5 can upgrade for £15 on return of their *Messenger Pro* disc.

The full price of *Messenger Pro 2* is £33 and the full Internet Suite, including *Messenger Pro 2*, is £63.

R-Comp: 22 Robert Moffat, High Legh, Knutsford, Cheshire WA16 6PS. Tel: 01925 755043 Web: **www.rcomp.co.uk**

Spreadsheet connectivity

RISC OS users are able to transfer files to and from *Word* using *EasiWriter* and *TechWriter* but for *Excel* files they have had to rely on the no longer supported *Eureka* program.

Now Clares have produced a standalone program that allows *Excel* files in HTML format to be imported into *Schema 2*. In turn *Schema 2* files can be saved as HTML and dropped into *Excel*. At the moment this will only work with individual sheets but there are plans to allow an entire *Excel* workbook saved as HTML to be converted.

The program is to be released at the Wakefield Show and purchases at the show, and advance orders, will be entitled to a discount of £5 off the full price of £25.

Schema 2 users should aim to see the program at Wakefield as should those who have fought shy of spreadsheet programs because of the previous problems of linking with *Excel*.

Price, including VAT, is £20 at Wakefield and £25 + £3 p&p after Wakefield.

The price of *Schema 2* together with the converters will cost £90 at Wakefield. Clares Micro Supplies Ltd 75a Webbs lane, Middlewich, Cheshire CW10 9DS. Tel: 01606 833999 Web: **www.claresmicro.com**

Render to your software

Up to now some of the best effects available in *ArtWorks* couldn't be rendered when the file was imported into other programs. This was a limitation of the *AWRender* module. Amazingly Martin Würthner has managed to update the module which can now render pattern fills from his Hatch modules and JPEG objects from his recently released JPEGObject module. Further extensions to *AWRender* are currently under development.

Details of how to obtain the new *AWRender* module will probably be on the MW Software Web site by the time you read this. *Acorn User* will, of course, be testing the module as soon as it's available. Web site: **www.mw-software.com**

In brief

Taking account

Kevin Edwards has recently announced the release of version 1.06 of his simple home accounts program. The latest version on his Web site is 1.08 so he's obviously been busy lately.

In particular he advises anyone using a version earlier than 1.06c to upgrade as there's a problem with earlier versions. Account2 is freeware. The program was converted from a non-WIMP original *earlier this* year.

As with all software under active development please let the author know of problems and suggestion for improvement; and if you find the software useful — say thanks!

www.ksedwards.ukgateway.net/riscos
ksedwards@lineone.net

Chuckie Egg

If I'm late producing the News this month then it could all be Michael Foot's fault. (No, not that Michael Foot!) I remember the Amstrad CPC version from about 15 years ago but it seems to have been identical to the BBC version that has now been made RISC OS friendly. And the tune is just as annoying as it ever was. If you want to torture yourself with the memories then go to:
www.voyager.co.nz/~mikef

RISC OS SouthEast

Unfortunately the RISC OS South East Show, advertised as taking place in Luton on 21st July, has had to be cancelled due to renovation work on the hall. The other *RISC OS* Show from the same organiser (RISC OS South West) is still on line for early next year as planned.

Find that file

The RISC OS Find facility is limited and not much used (or

Continued...

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The Lite+ model is the same as the Lite, but has an 8.4Gb HD and 64Mb RAM fitted as standard.
R7500 Lite+ — To Lite prices, please add £94.00

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R7500 Scorcher — To Lite prices, please add £315.00
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The Networx model is a Lite without the HD or CD fitted. Monitors are available as with the Lite.
R7500 Networx (no monitor) — £480.00

The Networx HD model is the same as the Networx, but has a (minimum of) 2Gb HD fitted as standard.
R7500 Networx HD — To Networx prices, add £59.00

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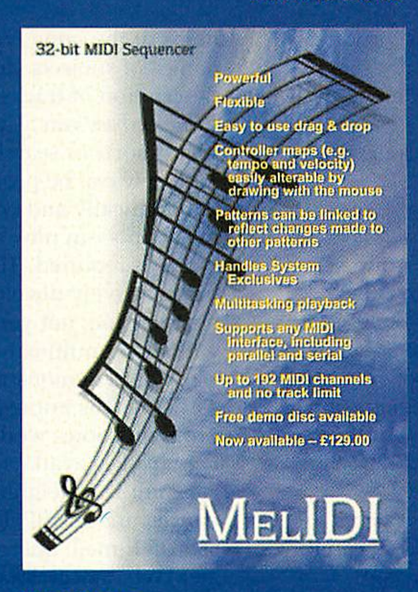


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Further information is available.
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64Mb EDO (works in Risc PCs)	£60.95
64Mb FPM	£114.50
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YST-M8 speakers	£36.00
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YST-MS30 speakers	£55.00
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Yamaha MU128 module	£744.00
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Sibelius 7 Student	£319.95
Sibelius 7	£520.95
Sibelius for PC/Mac is also available	
Optical Manuscript	£259.00
Sound module serial driver	£37.95
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RISC OS 4 (fitting available)	£120.00
RiscStation internal modem pack	£99.95
RiscStation second serial port	£Call
Scanners	£Call
StrongARM & RISC OS 3.7	£269.00
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Other Software

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R-Comp Internet Suite	£60.00
Repton Compendium	£18.00
Schema 2	£121.50
SiteWriter	£58.95
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RISC OS Manuals CD	£29.95



Discs (e.g.10x white discs – £4.99, 20x black discs – £6.93, 50x black discs – £13.99)
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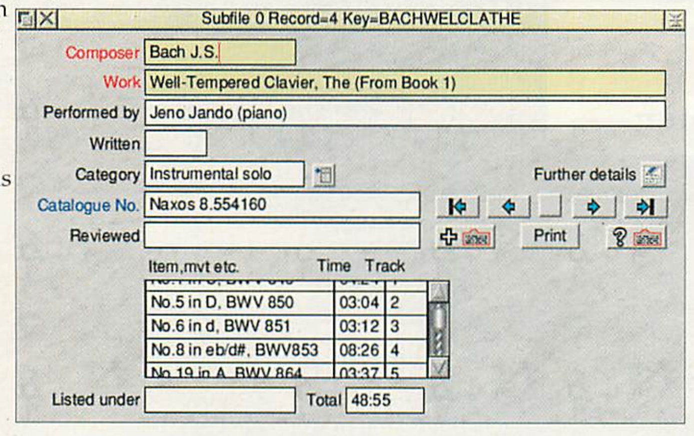



Power in hand

Most news items relate to products that we haven't yet actually seen. Exceptionally Derek Haslam's announcement of a new version of his *Powerbase* database program came in time to request a demonstration at his local User Group meeting.

As it's also our local Group we were able to be present to satisfy ourselves that *Powerbase* really is an excellent program. It is shareware which means it won't cost you anything to try it out. Registration costs £10 by cheque to the author or by credit card through APDL who also sell it.

There is a 72-page A5 printed manual that registered users can buy for £5 and the program comes complete with a tutorial and real-life examples. A recent addition to the program is a scrollable list field that can be used where a record includes an indefinite number of items of the same type (for example, names of subjects studied by a pupil, description of tracks on a CD).



Powerbase can also use scripts so that reports or searches that you use regularly can be produced automatically and consistently and the scripts can now ask for user input as required. The program is being actively developed and the next version, not yet on the Web site, will allow multi-column printing.

Derek's demonstration of his software was impressive and the program comes well recommended. *Powerbase* is available from Derek Haslam: 112, Keighley Road, Colne, Lancashire BB8 0PH. Tel: 01282 866835 E-mail: quercus@ukgateway .net Web: **www.pendle.ukgateway.net**

Walking the streets

Small businesses and home users, known in current jargon as Small Office Home Office (SOHO) are now both increasingly likely to want fast Internet access to more than one machine.

R-Comp Interactive have produced a solution that also includes a Print Server box. Via one box, your RISC OS machines, Windows machines, Macs and Linux systems all gain Internet access and joint printing facilities. The unit is a 10/100 Mbit network device, so copes just fine with normal and fast ethernet networks.

The Internet access is designed to allow ADSL connections for RISC OS machines and includes DHCP facilities for working with PC networks if required.

The box will use modem or ISDN, allowing people to share a modem connection now, and upgrade to ADSL or cable later. For printing, the box provides the ability to connect your printer and share it around the network using standard protocols. This means that you can make fast printing facilities available to every machine, quickly and elegantly.

Including software the box is available for £199 including VAT and delivery.

Normally we say that if you don't understand the technical details then it isn't for you; in this case, if you have more than one computer and want faster Internet (and printing) facilities shared between all your machines you should talk to R-Comp.

R-Comp Interactive: 22 Robert Moffat, High Legh, Knutsford, Cheshire WA16 6PS. Tel: 01925 755043 Web: **www.rcomp.co.uk**

In brief

known). Locate is a utility that was first released in March and has so far been upgraded and re-released twice. Locate is a file finding utility that will search any specified directory for files that match a set of conditions including filename, size, date modified and filetype. Wildcards can be used within the filename.

Locate is fast and sends the results of its search to a window from where the list can be saved or the search modified.

The author, Stephen Fryatt, has plans to continue to improve this piece of freeware and will undoubtedly welcome comments and suggestions.

www.tardis.ed.ac.uk/~stevef/software
stevef@tardis.ed.ac.uk

Textual msg

In case you've so far missed this option — it's possible to send SMS messages to digital mobile phones from your computer. Alex Macfarlane Smith has recently updated his SMSTrans software which is available from

www.toth.org.uk/~aardvark/archifishal/programs/

And I promise not to make any comment about silly Web site names.

AppDock

Despite working overtime on ArtWorks applets (see elsewhere) Martin Würthner has found the time to put his application launcher, *AppDock* on his Web site. Although this version has a date of January 2000 it is a more recent version than any previously released.

www.mw-software.com

On your own

Those of you intrigued by the report of the Solo solar RISC OS computer from ExpLAN will be interested to know that they can see the prototype unit at the Wakefield Acorn RISC

Continued...

OCR Software for RISC OS

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20 Gb	7200	£103	£150
30 Gb	5400	£104	£151
40 Gb	5400	£114	£161
44 Gb	7200	£139	£186
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Other sizes available
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Price includes interface

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Add just £47 to Internal price for an APDL fast IDE interface, External price includes an IDE interface for any type of machine

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8x 4x 32x	£107	£157
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12x 10x 32x	£149	£199

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Add £7.50 carriage

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VISA

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APDL PD-1	£12.50	Over ,800 programs and utilities. No games, clip art, music, etc.
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DTP-3	£12.50	Highly acclaimed clip art CD with more than 720 Mb.
DTP-4	£14.90	Latest clip art CD with around 13,000 files. Great for schools!
Publish Art '98	£7.90	Thousands of pieces of clip art and web images, by Smart DTP
Fantasy Pictures	£7.90	By request, from the Fanatsy section of the APDL catalogue
The Grafix CD	£7.90	1000's of pictures, backgrounds, buttons, and much more
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Best Games 2	£7.90	Games 1 was so popular we've done it again. 20 more games.
Best Games 3	£7.90	Yet another great compilation with 25 of the best games.
Skullsoft *collection*	£9.90	Great budget price games CD with *!Arya*, *!Xenocide* and *!Plig*
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PD CD-3	£4.50
PD CD-4	£4.50
PD CD-5	£4.50

Software

Ovation Pro £139
New version on CD with loaders for Impression, etc. Don't put it off any longer.

Faster PC £20
The XT PC emulator that works on any machine with 2Mb

Powerbase £15
Great database. Does everything most people will ever need at a sensible price

Menubar £15
Superior pull-down menu system with lots of features

Tiger £15
Long filenames and more

Worktop £15
Switch between 30 desktops with a single mouse click

RiscPC RAM

8 Mb		£9
16 Mb		£26
32 Mb	*EDO*	£47
32 Mb	*FP*	£47
64 Mb	*EDO*	£67
64 Mb	*FP*	£77
128 Mb	*from*	£139
2 Mb VRAM		£72
1 to 2Mb VRAM exch.		£49

APDL ideA fast IDE interface

- No complicated setting up. It's self-configuring so just plug it in!
- Uses DMA on Risc PC. Over twice as fast as the built in IDE interface.
- Includes CDFS and ATAPI CD drivers for many popular CD ROMs.
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- You can now use CDR or CDR/W drives with !CDBurn. No need for expensive SCSI interfaces and CD drives!

All these features for the incredible price of just £52
A version for A3000, A4000, A3010 or A3020 is available for £55

Ancestor+

The program for family historians and genealogists. Very easy to use. Imports !Ancestry 1 and II, !Family, CSV and GEDCOM and exports as GEDCOM or CSV. Can save as cross referenced HTML, with pictures, so you can pass data on to people who have a computer but no genealogy software, or upload to your web site. Powerful and flexible reporting and searching. Unlimited information storage, you aren't restricted to a few lines of text and a picture. *Ancestor+* is based on the program that Graham Crow was working on at the time of his death, which was a development of his original *Ancestry*. Price just **£59**

Data Safe - A new concept in backup and data security

Data SAFE

DataSafe consists of an external case to hold a 3.5" IDE drive, connected to your machine's printer port. This gives a large capacity portable drive, movable between machines and locations. Ideal for backup, secure data storage and transport. All the features of our ideA card, partitioning, passwords, etc. Great for schools. Supply your own drive or we'll fit one for you. Prices start at £99 or with 8.2 Gb drive £175 or 20 Gb £191

DataSafe is highly praised, but there's been one criticism. People would like it smaller and lighter so carrying between home and office (or school) is even easier. So we've introduced the DataSafe 'mini'. With all the features of the standard version, this uses a 2.5" drive so it's very small, about 5" by 5" and less than 2" high, and weighing only about 14 ounces! Prices start at £99 without a drive or with a 1.8 Gb drive just £159

Lights! Camera! Action!

In addition to their excellent *PhotoDesk Olympic* (and other) software, Photodesk Ltd are known for selling digital cameras that can use the *PhotoLink* software for linking with RISC OS machines.

They have recently announced reductions in the cost of the entry level Olympus C-860L camera (£225.00 including VAT and the *PhotoLink* software.

The software alone is normally sold at £69. The C960 Zoom now costs £320 and the C990 Zoom £450.

New models from Photodesk include the Olympus C2040, replacing the C2020Z, at £525 and the C3040Z, replacing the C3030Z, at £800.

Photodesk are still working to produce the card reader for the C2040Z.

There are also higher specification cameras in the Photodesk range with prices ranging over £1500. An additional offer for anyone purchasing a camera is the option to purchase PhotoDesk Olympic for only £69.

The cameras, *PhotoDesk Olympic* image editing software, *OHP2* presentation package, *PhotoLink*, *PhotoReal* and so on are available from Photodesk Ltd:

1 The Courtyard, Southwell Business Park, Portland, Dorset DT5 2NQ. E-mail: chris@photodesk. ltd.uk Web: **www.photodesk.ltd.uk**

User group scene

Like the Wakefield User Group (see also this month's Graphics column), the Essex Acorn User Group produces a newsletter which in future will only be available to visitors and members without Internet connection.

Its standard version will be as a downloadable zip file or as a HTML page on the group's Web site. Visitors will continue to be charged £2 for an occasional visit (refundable against membership charges) and will receive the newsletter following their visit.

Meetings are held at 7.45pm on the second Tuesday of each month in the Witham Library and the next meeting on 12th June will be about ARMLinux.

Enquiries: 01245 471463 or 01621 860773 Web: **www.wattys.fsnet.co.uk/ eaug.html**

Keeping to the same part of the country the M25 East RISC OS User Group are having a musical extravaganza in July. The wonders of *Sibelius*, *Rhapsody* and *Sharpeye* will all be manifested in an evening not to be missed.

If you have an ear for a good tune, would appreciate the capabilities of these pieces of software, then you might go to their meeting on Tuesday 17th July, 7.00 for 7.30pm at Harold Court School, Church Road, Harold Wood, RM3 0SH, only 5 minutes from J28/M25. Full information about the club and location from **www.m25eroug.riscos.org.uk**

i-Mode mobile phones

Mobile phones with a large colour display are already here (or rather there, in Japan). The P503i phone from DoCoMo includes a small joystick to move the focus area around the screen. Any item under the focus is enlarged making it easier to see.

There's no URL as you'd need to read Japanese and there are no Japanese readers of *Acorn User* (at least none came forward to help with last month's translation problem) but if there is room the editor might include a picture of the P503i.



Oh, apparently there is at least one Japanese reader of *Acorn User*. Sorry.

Something smaller

Not quite as small as a Samsung screen or a P503i but last month's teaser was about a RISC OS machine that I intended to show you in full colour this month. The machine is indeed smaller than the average machine (and correspondingly cheaper) but although the perpetrators of this hardware make exceedingly good computers they have no sense of magazine deadlines — so I'm afraid you're just going to have to go to Wakefield or wait until next month. Sorry again.

In brief

OS Show.

www.explan.co.uk/hardware/solo.shtml

Give me a cookie

Some Web browsers (the people not the programs) are concerned about storing cookies from Web sites. essentially cookies are small snippets of information that a Web site stores on your harddrive to help you navigate a site on subsequent visits. Users are concerned about the information that might be stored as cookies and, although cookie downloading can be turned off, some sites won't allow you to enter the site without cookies enabled.

James MacDonald has provided a solution for Oregano users that deletes the cookies once you've gone off line.

The Cookie Monster software is available from **www.topeka.clara.net/cm102.zip** but comes with a health warning — it's still in an early version and we haven't risked using it here yet.

Beavering away

A late addition to the list of exhibitors at Wakefield is Liquid Silicon who will be demonstrating the POSsum Electronic Point of Sale system that was previewed last year by Mal McClenaghan of RiscStation (Australasia).

The preview brought many positive comments and it has apparently gone down well down under. Liquid Silicon who will be on the Riscstation stand have not commented on the availability of the canned Possum that was featured on the same stand last year.

www.cybervillage.co.uk/acorn/liquid

Contacting AU

news@acornuser.com
John Cartmell

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Everything you need to get started; camera, card reader with RISC OS drivers, two sets of high capacity rechargeable batteries and charger all for just £499!

Need a new Mouse?

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An optical mouse for precise tracking in a comfortable, rounded shape.
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RiscPC version: £49.99

Mini Wheel Mouse
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RiscPC version: £39.99

Pilot Mouse
The good value, reliable wheel mouse for greater efficiency.
RiscPC version: £26.99

Cordless Wheel Mouse
Cordless for freedom of use, a scroll wheel and a shape that fits right or left hand.
RiscPC version: £39.99

Cordless MouseMan
Freedom from cables, curvaceous, easy scrolling: the best nibbler around!
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Low cost RISC PC PS2 compatibility thanks to new STD PS2 converter lead.



Normal PS2 versions available call for details and latest prices.



CompactFlash™ & SmartMedia™ for RISC OS!

Surftec are pleased to announce the launch of our range of DigiFlash CompactFlash™ and SmartMedia™ card readers.

Compatible with all makes of RISC OS computers* and Network Computer, they are easily plugged into the parallel port which allows you to download data from CompactFlash type 1 and 2, and SmartMedia cards, from devices such as Digital Cameras, PDAs, MPEG3 Portable Music Players etc.

Now with support for IBM MicroDrive!

DigiFlash now supports the IBM MicroDrive, either in native FAT16 or even partitioned for RISC OS (including F+ support).

Once the reader has been plugged into the parallel port and PS2 keyboard port (for power), you simply load the RISC OS driver. This device allows other parallel devices to be daisy-chained, such as printers.

When the software has been loaded, just treat the media like a floppy disc, you can copy, delete and rename files while on the CompactFlash or SmartMedia cards.

The Surftec RISC OS drivers provide an extra disc icon allowing the contents of the media to be read and loaded into your favourite Acorn photo software such as ImageMaster, ChangeFSI or PhotoDesk (also available from Surftec).

Card Readers/Drivers/Media

CompactFlash Reader (inc Acorn driver)		£ 79
SmartMedia** Reader (inc Acorn driver)		£ 79
Acorn RISC OS/NC Driver*		£ 39
340MB IBM MicroDrive	**NEW PRICE**	**£ 219**
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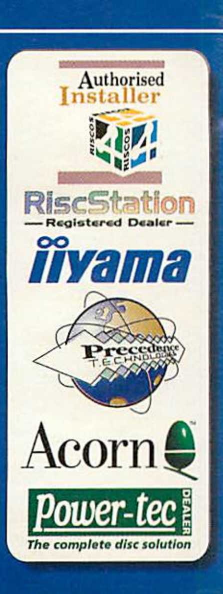
* Surftec driver will not work with all types of card reader, and requires a bi-directional parallel port.
** SmartMedia reader expected launch May 2001.

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E-Mail: sales@surftec.net
WWW: http://www.surftec.net





All about location

The majority of visitors to your Web site will have arrived as a result of using a search engine. We all have our favourites — I usually start general queries with *Alta Vista UK* and *Google.com*, and go through *AcornSearch* for RISC OS topics. Before you can expect your site to pop up at the top of a search engine results page, you or your Webmaster will have to do some extra work.

Search engines use many different criteria to create a ranking for a Web site based on the pages submitted. Weight may be placed on matches on the text in the hidden META tags within the page, or on the frequency of appearance of a key word, or even how much time has elapsed between your click on the result and your next similar search query.

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The position of the keyword on the page is usually paramount. Site writers trying to be clever with large Javascript and Flash segments may not realise that key phrases in the text may become pushed way down the page by their bloated code and tables. The one most important location in the whole page is the TITLE tag, where a phrase of two or more relevant keywords should be placed.

Search Engine Watch at **http://searchenginewatch.com/** is a commercial site that began as a service for Web designers, librarians and researchers interested in understanding search engines. It is now recognised as a source of quality information on how they work and how well they work. Although commercial, non-subscribers can find a lot of useful tips about how to design search-engine-friendly Web pages.

When you're finally ready to submit your site with appropriate keywords in the TITLE and META tags, you might like to adapt Kell Gatherer's Location Works Site Submit page at **www.locationworks.com/kang/subm.html** Substitute your own URL for the Location Works one and your site URL will be submitted to Google, Alta Vista, Excite, InfoSeek, Lycos and Webcrawler with just a few clicks.

Time to quit

No this isn't my resignation letter, it's a follow-up to my recent review of Keith Wright's neat *NetTime* online timer program. I'd mentioned that stopping *NetTime* on disconnection was more tricky to arrange than the method of starting it but here's a freeware utility program that makes the job equally easy.

Steve Fryatt's *TaskKill* is a short but elegant BASIC program that extracts the name of the task from the command line. Then it asks the Task Manager for a list of currently running tasks and their handles, and if the task name you asked for is there, *TaskKill* sends it a "Quit" message and then quits itself. Perfect.

Download *TaskKill* from **www.tardis.ed.ac.uk/~stevef/software/utils/taskkill100.zip**, unzip it and place inside the Library directory of your *!Boot* start-up structure so you can call up *TaskKill* by name, rather than having to include its whole pathname in your calling command.

Create an Obey file containing the text "taskkill nettime", and set up your Dialler to call this file on disconnection. What could be easier? *TaskKill* can send a "Quit" message to any other named Wimp task, so the possibilities are endless. Time to stop.

In brief

No drive to sign on

A Basic Guide by Theo Markettos to signing up to NTLWorld's un-metered Internet service using RISC OS machines can be found on his Web site. All that's needed is a copy of Socketeer and the Oregano browser demo. You will also need an NTLWorld CD for the ID numbers on the sleeve, but no actual CD-ROM drive nor PC are required.

NTLWorld with RISC OS
www.markettos.org.uk/riscos/ntlworld.html

Oregano extras

Sendu Bala can tell you how to extract the rather good *Hotlist* application from the *ANT© Suite*, and use it to improve the *Oregano* browser. While *Hotlist* isn't the only such application around, it seems worth keeping even if you've decided to discard the rest of the Suite. Creating "skins" (alternative control panel designs) for *Oregano* is another subject covered by Sendu Bala on the same site, which collectively goes by the title of Unofficial Hints and Tips.

www.drood68.freeserve.co.uk/Oregano/

Whois that?

Ever wondered who owns these domain names? **riscossoftware.com**, **riscosworld.com**, **riscos2000.com**, and so on. You can look up all the 183 domain names that have "riscos" in them by browsing to **www.whois.org** where the WHOIS domain registration records can be searched.

Only a few of them are actually concerned with RISC OS, and a large number belong to business names beginning with "S" located in San Francisco or "Frisco". This US site only searches the **.com**, **.net** and **.org** records. More complete searches can be done at:

www.demon.net/external/ntools-exp.shtml

Contacting me

David Dade:
comms@acornuser.com



The RISC OS initiative

I've noticed that PD and Shareware development for RISC OS seems to have slowed down somewhat over the past few months. I see a healthy Shareware market as being an indicator as to generally how well a platform is doing. It seems that there is almost a lull in the RISC OS world at the moment.

Perhaps everyone is waiting for new machines to come out, or perhaps there are less people tinkering with programming? Perhaps everyone has the software they require, or are waiting for someone else to produce that elusive utility.

Another, more worrying thought, is that instead of hunting around or writing a utility themselves, people are moving to the 'dark side' of Windows, Mac OS or Linux. There is no disputing that there are some interesting applications on other platforms, just like RISC OS has its share of unique applications.

Of course, many of these can be an inspiration to RISC OS programmers, or even, in the case of Linux, help by providing source code and technical information.

Enter Peter Naulls, who has just launched what he calls the "RISC OS Projects Initiative".

The purpose behind this new initiative is to highlight programs or projects which would be beneficial to RISC OS. Peter believes (and I tend to agree with him) that RISC OS desperately needs some of the applications or utilities listed, and discussion is welcome from anyone who would like to contribute to or help with programming. Some of the ideas currently listed on the site, are aimed at the more techie type of user.

However, it's techie and programmer types that RISC OS needs to attract, and if programmers realise how nice RISC OS is to use, the knock-on effect should be more software being developed all round.

Not surprisingly, quite a lot of ideas listed involve network or Internet connectivity as this is the biggest growth area at the moment. However, RISC OS also needs industrial strength spreadsheet packages, and one suggestion is to port gnumeric, which is a powerful Linux spreadsheet.

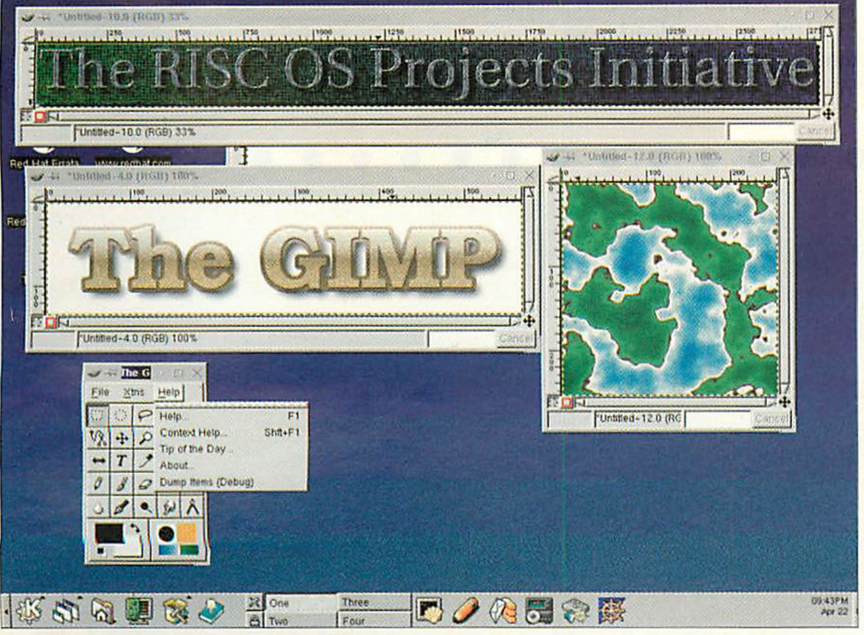
Another useful feature imported from the Linux field would be the ability to use RISC OS as a X client or to implement a database filing system, allowing SQL queries on an operating system level.

With the increasing popularity and adoption of XML, RISC OS could really do with a comprehensive XML editor/browser. Do you feel like taking up the challenge? Various source codes are available, so please contact either myself or Peter if you think you can contribute to the project.

Another aim of Peter's Web site is to publicise existing projects, or partially completed ports, with the aim of letting people know what's available and to perhaps encourage other programmers to become involved.

One application listed on my list, which I would love to see converted to RISC OS would be The GIMP. Linux users will recognise this as an extremely flexible and powerful graphics editing and manipulation package. Indeed, its script language and extensive range of filters and effects probably outdo even *PhotoShop*, which costs several hundred pounds and is inefficient in comparison.

The RISC OS Projects Initiative can be found online at **http://chocky.mine.nu/initiative/**



Are we ever likely to see this on RISC OS?

The very next bar

Over the years, I've collected numerous desktop utilities for launching and managing applications, but I've never quite found one that did 'exactly' as I required. I always seemed to need a couple installed because one had one feature and another had a different, albeit equally useful feature.

To solve this quandary, I decided the only option was to write my own application launcher application. Personal requirements are generally the inspiration behind most of my shareware projects, and I hope that other RISC OS users may share the fruits of this project.

NeXTBar is simply a bar of buttons which can be placed anywhere on the screen, either in a horizontal or vertical orientation. By default it will expand to fit the size of the current screen mode, although you can customise this if you require a smaller, fixed number of buttons.

Adding an application, file or even URL is performed effortlessly by dragging the required object onto the button you require. You can then specify whether or not you want the application 'seen' by the Filer whenever NeXTBar loads or even loaded automatically. Thus NeXTBar can be placed in your Boot sequence to determine which applications are automatically started and ensure that certain applications have been 'seen'.

You can even drag URLs from a Web browser so you can quickly bookmark a site if you're online and want a quick record of sites being visited.

Each 'button' can also have a hotkey assigned to it, allowing you to launch the relevant application simply by pressing Control and a user-defined A-Z key.

A number of global choices lets you customise *NeXTBar* to your individual tastes, optionally including a free memory indicator and a time/date display on the bar. The position of the bar can be locked, and the adding/editing of applications can be password protected — thus preventing unauthorised users changing your settings.

There are nine different bars available, selected either by clicking on a coloured selector or by pressing Control and a function key from 1-9. If this combination clashes with other software you use, you can use an alternative combination of Control+Shift.

Although currently in a beta stage, the final application should be available to download from **www.vigay.com/shareware.html** by the time you read this.

More Technology

The Technology Consortium for RISC OS is another initiative targeted on promoting new technologies for RISC OS. This is more general purpose than Peter's, and includes courses on WIMP programming as well as hardware projects and user group meetings. There are a number of interesting ideas and projects listed as well as resources and documentation for developers.

Although T-C-R was launched over a year ago, there has been a disappointing lack of user participation and there is a plea on the Web site that unless more participation and feedback is received, they may regrettably be forced to close the Web site, which would be a great pity, especially as RISC OS is starting to have a greater impact around the world — especially with pioneering new projects such as ExpLAN's SOLO computer helping to spread the RISC OS word.

T-C-R can be found at **www.t-c-r.org** so please do pay it a visit and see if you can help with suggestions or even programming expertise.

Contacting AU

Paul Vigay:
pdpage@acornuser.com

Top Twenty Links: *Courtesy of www.riscos.org*

No.	Visits	Description
1	129	SplitMPEG - convert from MPEG to Acorn Replay, by Unknown Homepage: ftp://ftp.argonet.co.uk/pub/Acorn/PD/Graphics/ Status: Freeware
2	126	VProtect - Latest virus protection module, by Pineapple Software Homepage: http://www.pineapple.demon.co.uk/vprot.zip Status: ?
3	125	VideoPlus - converts VideoPlus codes into times and dates and vice vers, by James MacDonald Homepage: http://www.netbook.demon.co.uk/ Status: Freeware
4	125	Citation - A bibliography manger for handling the references in scientific and technical papers. Incorporates the features of Endnote andPapyrus with the useful drag-and-drop of RISCOS., by Dr.Tim Dawson Homepage: http://www.darwin.u-net.com Status: Shareware
5	120	ARM Debug - A disassembler, editor and multistepper for ARM code, by Theo v/d Boogaert Homepage: http://www.vd-boogaert.myweb.nl/ Status: ?
6	116	MP3Radio - A RISC OS client for playing internet radio stations using audio MPEG streams, by Philip Hardy Homepage: http://www.philspages.co.uk/downloads.htm Status: Freeware
7	97	DigitalCD - A desktop music player for RISC OS, by André Timmermans Homepage: http://www.geocities.com/SiliconValley/Horizon/4471/dev.htm Status: Freeware
8	97	POPstar2 - Improved version of POPstar, by Joseph Heenan Homepage: http://www.ping.demon.co.uk/acorn/ Status: ?
9	95	GraphWorks - User-friendly interface to graph-plotting program with numerous options., by Aurelien Botman Homepage: http://www.srcf.ucam.org/~ab384/graph.html Status: Freeware
10	90	Flash - A slightly improved version of Leo's Flash player, by Henrik Pederson. Homepage: http://login.dknet.dk/~henrik/ Status: ?
11	89	Acorn files - Various 'official' Acorn patches and updates., by Acorn Homepage: http://www.acorn.co.uk/ftp/riscos/releases/ Status: ?
12	87	Xuen - lots of utils with an animated icon!, by Barney Short Homepage: Status: Freeware
13	84	VideoPlus - RISC OS port of the DOS VideoPlus codec, by James MacDonald Homepage: http://www.netbook.demon.co.uk/ Status: ?
14	83	WavEdit - A disk based WAV format sample editor, by Robert Hancox Homepage: http://www.topholt.freeserve.co.uk/software/wav.htm Status: ?
15	81	Zap - Arguably the best RISC OS text editor (well, it's my favourite!), by Mixed Homepage: http://www.zap.uk.eu.org/ Status: ?
16	81	ArcWeb - The best freebie web browser for Acorn machines., by Stewart Brodie Homepage: http://louis.ecs.soton.ac.uk/~mb94r/arcweb/arcweb.html Status: ?
17	77	!Boot and Module Database - Paul Vigay's database of module version numbers and !Boot information., by Paul Vigay Homepage: http://www.vigay.com/riscos/mods.html Status: ?
18	76	Chockcino - Java 1.1 virtual machine, by Peter Naulls/Warm Silence Software Homepage: http://free.prohosting.com/~chocky/ Status: Commercial
19	68	FTPc - GUI FTP client for RISC OS, by Colin Granville Homepage: http://www.ftpc.iconbar.com/ Status: ?
20	60	NeoPocott - A Neo Geo Pocket emulator, by David McEwen Homepage: http://neopocott.emuunlim.com/index.html Status: Freeware

The very best

Nicholas van der Walle opens the Pandora's box that is Cerilica Vantage

RISC OS has traditionally always been ahead of its time. This situation was typically joined by software packages with the same philosophy. Witness Computer Concepts' *Impression* followed later by the acclaimed *Sibelius* range.

A new name in innovation may now be added to this select list; *Cerilica Vantage*. Created out of the need to give RISC OS a future in design and publishing from where *ArtWorks* left the scene, *Vantage* is now able to boast of fundamental features to make PC and Mac users envious. It is these technical foundations already found in this extensive software that I have been invited to disclose prior to the first complete packages being delivered to the ever patient customers.

It is possible to break down *Vantage's* leading technologies into bite-size chunks. How all these components interact to bring a powerful design and publishing package is for an independent reviewer to reveal.

Smooth as silk

It is a matter of some amusement, that PC and Mac users are now only beginning to experience the system-wide joys of anti-aliasing. This technology was brought to the fore by Acorn to enable desktops and its text to be readable at TV screen resolutions. It then found great favour in the generation of Web graphics to create an altogether smoother appearance.

Real-time on-screen anti-aliasing is still a relative rarity beyond text (which may easily be pre-generated and cached). Some attempts on PC and Mac design software to bring this feature is quite painful to witness — it is common to find a trade-off in quality for speed, memory for functionality or just forget the real-time aspect altogether.

Quality of anti-aliasing may be assessed by the "levels of grey" an otherwise rasterised edge is smoothed out by. With the RISC OS font system, anti-aliasing is conducted to 16 levels of grey (effectively sub-sampling a 44 pixel mono image into a single pixel at 16 levels of grey). And the level of 16 is typically found across a number of systems, including *ArtWorks*.

Whereas this may have been quite revolutionary 10 years ago, *Vantage's* ability to increase this value to over 200,000 with a reduced memory requirement and still operating in realtime on a lowly ARM 3 processor is quite simply stunning.

With this level of anti-aliasing combined with Risc PC and later, deep colour graphics hardware capabilities, the screen view has never been sharper and clearer which transposes nicely to Web design.

Absolute confirmation of the power of *Vantage's* rendering system came when we had the opportunity to display an image at a resolution of 20481536 in 16 million colours on a development Millipede Imago motherboard at the 2000 Epsom Show.

At this resolution it would have been impossible to distinguish the difference between a fine black *Vantage* anti-aliased Bezier curve and somebody having drawn an equivalent line with a fine ink pen.

Vantage now uses this anti-aliasing system as an optional default for rendering all object types from simple profiles to sprite fills. Also due to its increased quality over the RISC OS' font system, any direct bitmap output (currently sprites, TIFFs and PNGs) first automatically convert all text objects to paths internally prior to rendering.

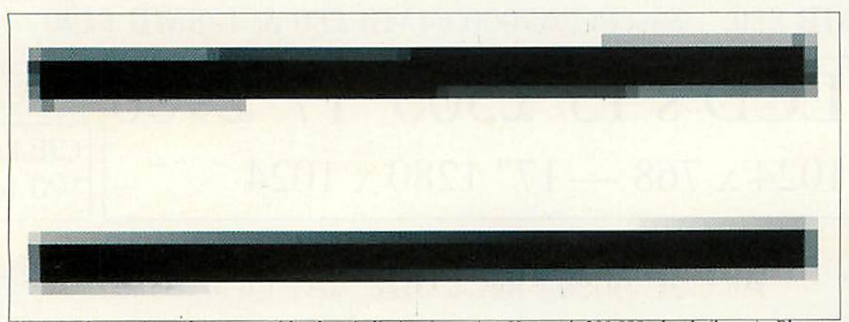


Figure I: Comparison of common 16 level anti-aliasing (upper) to Vantage's 200,000+ levels (lower). Blown-up actual screenshots (upper comparison taken from ArtWorks) taken in 256 grey scale mode shows clearly the improvement from distinct stepped graduations to a smooth graduation.

Dithering for a reason

Another aspect to *Vantage's* modular rendering system is the real-time on-screen dithering in modes of less than 16 million colours. Whereas attempts to increase screen colour accuracy are typically achieved by utilizing a fixed pattern dither (often very obviously under Microsoft *Windows*), this was simply not acceptable when combined with

foundations



Figure II: Pure cyan ink square for comparison with video cyan (see text)

revolutionary ink/colour system developed for *Vantage*.

The problem with fixed pattern ("chequer board") dithering is that the colour matching error margin is higher than a random form of dither, as employed by *ChangeFSI*. This issue is magnified when combined with multiple overlaying transparencies, a feature found in *Vantage*.

Whereas pure "FSI" random dithering is very processor-intensive, a new random approximation was developed to ensure colour reproduction in 256 and 32,000 colour modes were presented to the user. The end result provides excellent representations of the 24-bit colour while never dragging the render speed down.

TRUE.

It is the revolutionary "ink technology" aspect of *Vantage's* development that has been touted over the past years of progress more than any other aspect of the program. With good intention as *TRUISM 2* is one of the reasons *Vantage* exists at all.

From the outset, it was agreed that there was little point in creating a "me too" software package; a system attempting to play catch-up and imitate long-establishing PC and Mac products. Why do so when perfectly developed systems were already readily available on alternative platforms? Instead *Vantage* had to bring something new to the market. Something that no other consumer design and publishing system would even contemplate due to its apparent technical complexity.

In short, *TRUISM 2* is a real-time arbitrary ink simulation system. Whereas the inks "CMYK" are very widely used, they are by no means the only inks available to a designer's imagination and his or her commercial printer. Use of alternative inks are becoming more commonly used in a wide range of areas; from garish fluorescent magazine covers to subtle supermarket packaging exuding "quality".

But how does a user handle these alternative or additional inks on a monitor? Creating a spot colour may allow simple specification of an area to be filled using an additional ink, but surely as it is possible to mix any inks in real life, it must be possible to do so on-screen? Well, unless you have access to *TRUISM 2* the answer is typically "no" under a few thousand pounds.

But it isn't just the ability to successfully simulate new and wonderful inks on-screen, it is also about representing the standard inks available much more accurately. Try this:

The block of pure Cyan ink (Figure II) has been created to allow you to compare what is normally presented by a naive design and publishing package and what reality inconveniently provides. In *Draw* or *ArtWorks*, create a rectangle on-screen and fill it with 100% Cyan.

Now place Figure II next to the screen and see how close reality and naive software can come. Just consider that this applies to all four of the CMYK inks and that mixing these inks not only multiplies the problem but introduces a whole

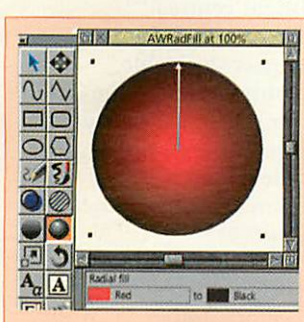


Figure IIIa: Radial fill in ArtWorks from Red (100% Magenta and Yellow) to Black (100% Red) on-screen

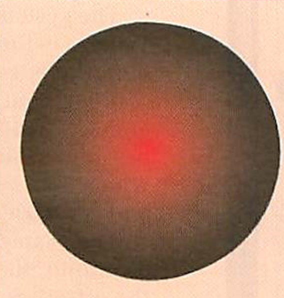


Figure IIIb: CMYK PostScript printed result from ArtWorks showing result of interpolating between ink previous levels (mid-point of 50% Magenta, Yellow and Key giving a muddy red).



Figure IIIc: ArtWorks radial fill imported into Vantage. Screen view shows what the printed result will be due to use of TRUISM 2 ink system.



Figure IIId: Radial fill modified in Vantage so end colour is changed to Deep Black (100% Magenta, Yellow and Key).

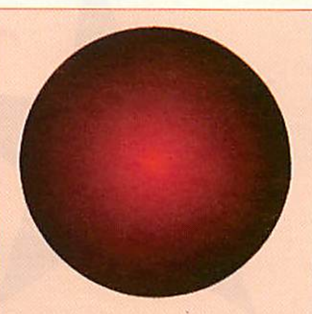


Figure IIIe: CMYK PostScript printed result from modified Vantage fill. Mid point ink levels are 100% Magenta, 100% Yellow and 50% Key giving nice smooth colour graduation.

new range of problems.

It is beyond the scope of this article to go in-depth into the issues involved. But as a final way to convince you that costly and annoying printing mistakes may be avoided using *Vantage*, look at the comparisons in Figure III.

The best part about *TRUISM 2*, which sits at the very heart of *Vantage*, is that it always shows on-screen what the outcome will be, regardless of the inks used. Even RGB drawfiles, *ArtWorks* EPS exports, sprites or PNGs dropped into a document will be professionally separated in real-time into the inks available. There is no longer any reason to hold-off with your design and publishing potential because the software will not tell you the colourful truth.

Drawing a fine line

Moving away from rendering, it is so simple to forget that the majority of a designer's time should be spent *designing*. And the majority of design time is not involved with super effects but rather laying down lines, curves and shapes into meaningful artwork.

Getting the line and shape tool to a highly polished state was an early priority in *Vantage*. Not only should it be possible for novices to the package to navigate these tools using the windows and dialogue boxes (all intentionally designed to occupy minimum screen space) but after gaining experience it must always become possible to work faster. The extensive use of key presses and alternative mouse clicks, making full use of the RISC OS three-button system, enables more experienced users to spend less time doing the design chores.

An example may be found in Figure IV where the typically laborious task of rounding an irregular star shape can be timed between packages. Creating is simplicity too, with Adjust-clicks of the mouse cycling between line editor modes (line, curve, freehand, node select).

The shape tool was also designed from the outset to remain un-typically flexible in use. Rather than having multiple tool buttons to created various shapes and their rounded counterparts ("how 90's..."), *Vantage* simply presents the basic shapes and allows corner nodes to be rounded simply by Adjust-dragging.

To take this philosophy of keeping shapes highly dynamic, it was determined that editing of shapes *as shapes* would remain possible even following a transformation. The rounded star in Figure V can still be adjusted as a star shape.

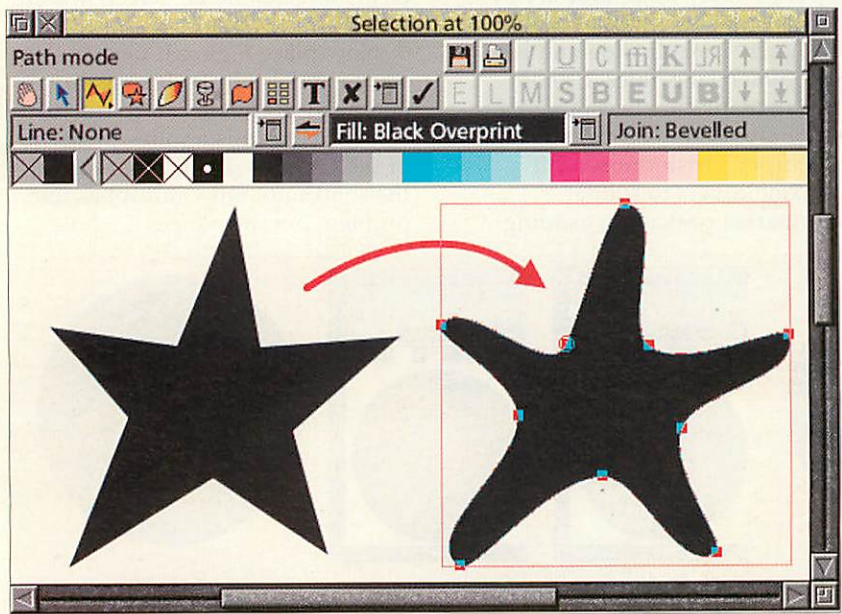


Figure IV: The process of "rounding" an irregular object in alternative design packages typically involves selecting all nodes individually (10 clicks in this example), selecting the curve line button and finally double-clicking on each node once more (total of 31 clicks or 20 seconds).
With Vantage's line editor it is possible to take the same route or simply press Ctrl-A (select all nodes), C (curve) finished with S (smooth) which reduces the mundane task to around 3 seconds.

Shading the light fantastic

Another limitation of classic design software that Cerilica wished to avoid in the development of *Vantage* is pre-defined radial fills. In older packages it was only traditionally possible to create circular radial fills along a linear path and acceleration. This often leads to artificial looking fills with pin-point highlight centres.

The system incorporated into *Vantage* is fully user-definable, with the possibility to define the contour, contour offset, trajectory and acceleration. The contour is based on a single closed path which may be constructed of lines and/or Bezier curves.

The example of Figure VI shows a contour, the origin (determining the offset), trajectory and acceleration by way of the trajectory's Bezier control handles. Traditionally to create an object as illustrated, blends or tweens would be required but these are limiting

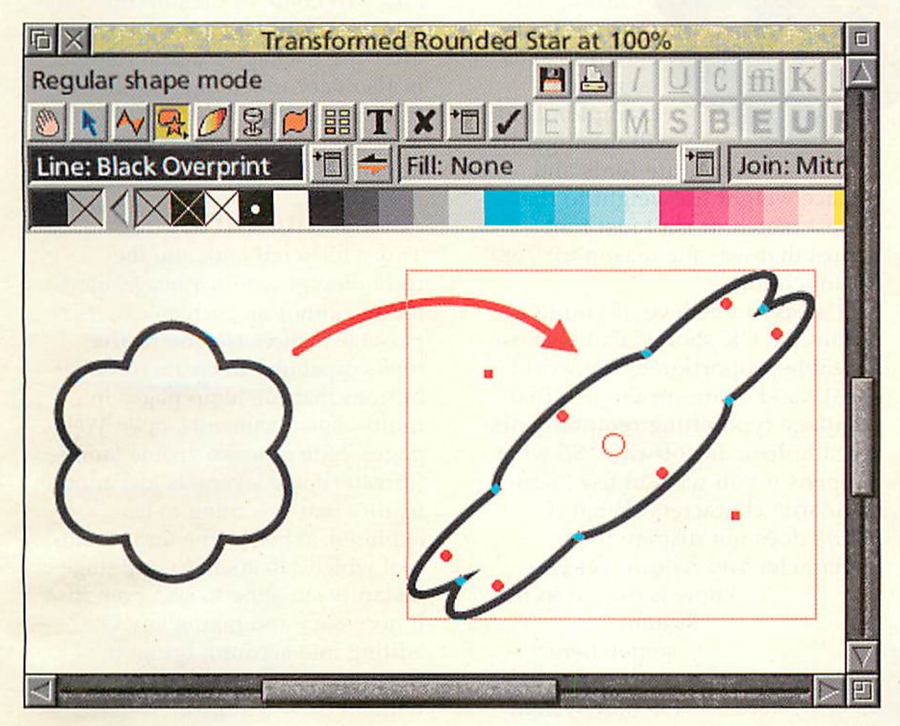


Figure V: A six-sided stellated star created using the shape tool has it corners rounded (left profile). From within the select tool, this dynamic shape is transformed using skew bounding box grab-handles (right profile) yet when re-entering the shape tool, the object may be modified still as a shape.

due to being stepped and may not have their appearance modified so easily compared to *Vantage's* dynamic radial fill.

By creating and combining subtle fills, often in combination with *Vantage's* dynamic transparency tool, smooth and realistic blends are within easy grasp such as demonstrated in Figure VII.

Another nice aspect to fills (of all kinds such as radial, linear and sprite) is that they remain fully editable even when transformed through skewing, rotating and stretching the object. Using transformed skews often leads to further realistic enhancements to a drawing, especially when recreating 3D objects.

Future developments of the fill system are also hugely opened up thanks to the technology used to display user-definable radial fills. Currently on the drawing board are multi-stage fills, concave contour fills and highlight map fills.

The X Fonts

Font X is to typography what *TRUISM 2* is to the world of inks; a well considered system which allows you to explore and handle text characters and fonts in a way not normally open to consumer products, especially under RISC OS.

To begin with, commercial fonts are often supplied in many varied weights. To illustrate this, a font I always have installed is Antiqua.

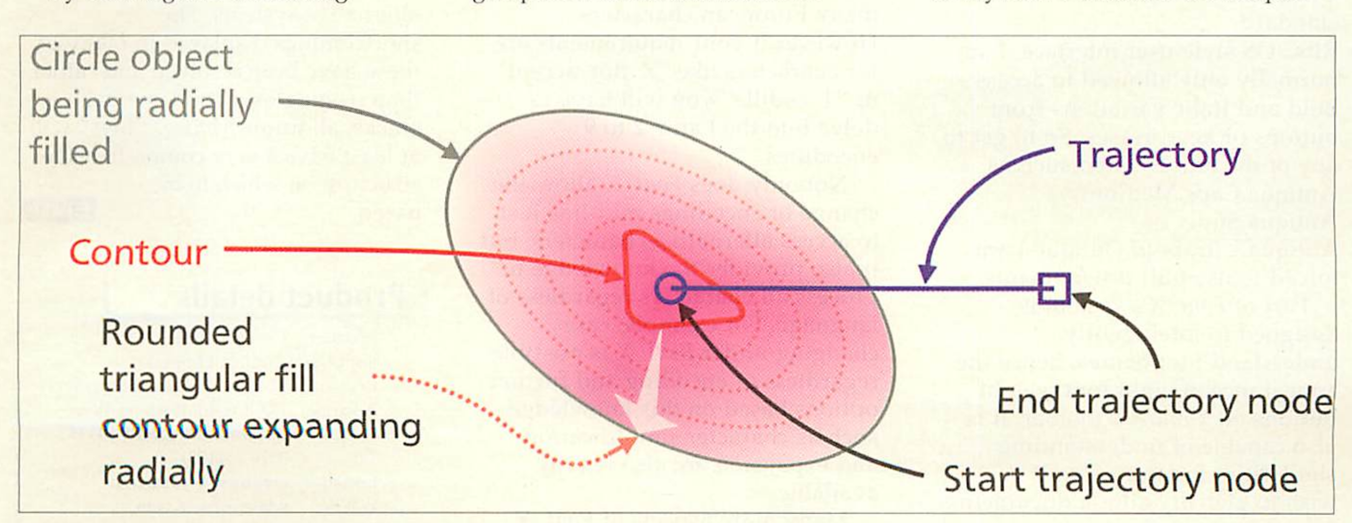


Figure VI: Diagram of a user-defined radially-filled object. Note that fill is further transformed.

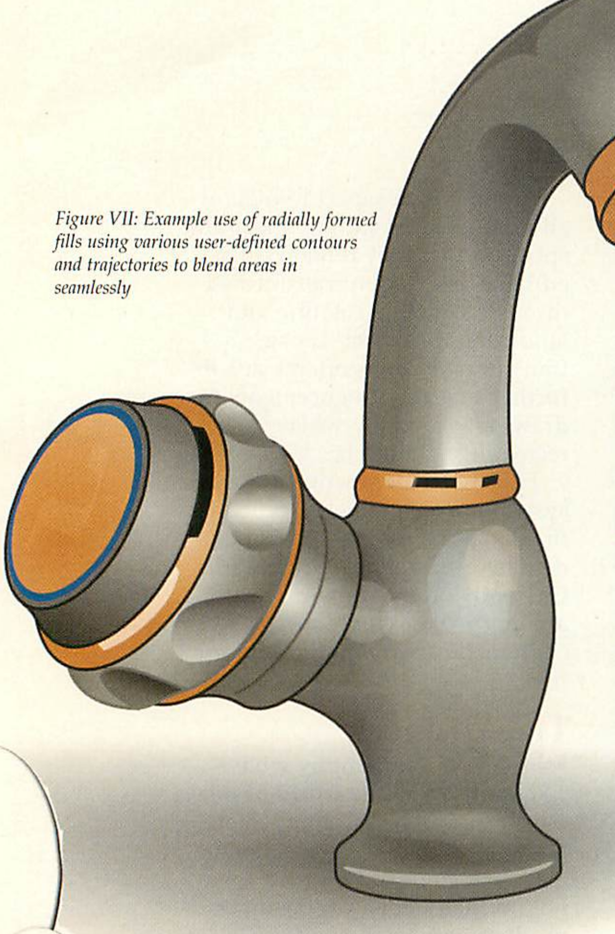


Figure VII: Example use of radially formed fills using various user-defined contours and trajectories to blend areas in seamlessly

Illustrated using Cerilica Vantage 0.98e

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Under the standard RISC OS style user interface, I am normally only allowed to access Bold and Italic variations from buttons or key presses. So to get to any of the others listed such as Antiqua.Caps.Medium, Antiqua.Super or Antiqua.UltraBold.Oblique I am forced to use pull-down menus.

Part of *Font X's* system is designed to intelligently understand font names, hence the appearance of eight font weight buttons on *Vantage's* toolbar. It is also capable of understanding similarities in fonts — so if you wish to globally alter a document's appearance through its use of fonts (serif to sans serif, for example), *Font X* will intelligently substitute fonts and replace weight for weight to the closest match. It isn't just font names that was the reason for *Font X's* invention.

It's easy to believe, if you live within the UK shores, that because a sizable proportion of the world speaks and writes in English that language typesetting requirements are simplistic in software. So what happens if you wish to use "non-standard" characters? What if *!Chars* does not display the character you require yet you know is buried in the system somewhere? The RISC OS font system has encodings built into the structure, where encodings allow access to alternative alphabets. By default, RISC OS runs in the Latin 1 encoding giving access to many European characters. However if your requirements are for characters like "Z dot accent" or "T cedilla" you will have to delve into the Latin 2 to 9 encodings.

Not only does *Font X* allow the change of encodings mid-line just to access alternative characters, but it also provides the knowledge to process all characters regardless of language. For example, case changing under *Font X* is possible regardless of encoding and further options based on this knowledge such as character simplification and expansion are also readily available.

Many more aspects of *Font X* are already present within *Vantage* and will come to the fore upon the release of full text areas planned after the package's initial release. It is also very much beyond the scope of this article to delve into the *Font X* system which powers current advanced text line control.

As for the future...

This whirlwind look into the technologies within *Vantage*, here, today, cannot do such an extensive package justice. The interactive tool's capability to create roll-over buttons that can jump pages in multi-page documents, open Web pages, hide or make visible families (directory-like layers) is just another feature that is waiting to be explored. Whereas the undo/redo tool which can zoom to any stage, instantly spooling to and from disc if necessary and taking any OLE editing into account, brings a freedom to effortlessly experiment with all these features.

What I do hope to have conveyed is the assurance that the *foundations* are all in place. *Vantage 1.00* is a revolutionary bit of software due to these advanced building blocks. Cerilica has been privileged to start on such a package with the use of hind-sight provided from alternative systems. The shortcomings displayed in many of these have been resolved and rather than pasting over fundamental cracks, all future *Vantage* "toys" will at least have a very comprehensive structure on which to be based.

Nick

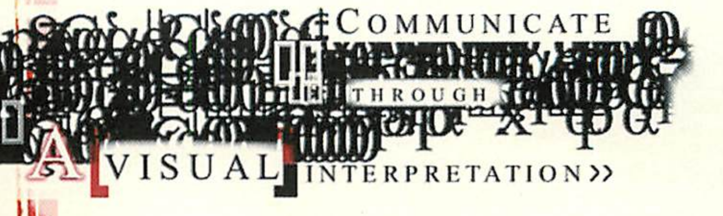
END

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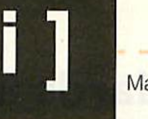
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Playing with

The team behind the RISC OS point-of-sale system gives you the whole story

This year's Wakefield RISC OS Show saw the official release of the POSum Electronic Point of Sale system in the UK, having been demonstrated at last year's Wakefield Show and subsequently launched to acclaim in Australia. This is an exciting new direction for RISC OS machines and has huge potential sales in a market where reliability and ease of use is paramount.

Here, Mal McClenaghan from RiscStation Australasia tells us about the origins of the POSum system, Darren Windsor (Image Software) talks about EBMS, the software which drives the POSum and Alan Gibson (Liquid Silicon) looks at the surrounding hardware. Over to Mal...

Background research

In late 1999 Marisa (my wife) and I were window shopping in a trendy boutique (we do have them in the Antipodes) while I eavesdropped on a store manager and a junior staff member trying to breathe life back into an iMac-based EPOS system. It transpired that the software vendor had issued their store with a 'bug fix' for their software that morning.

Since the upgrade had been applied, the system would no longer boot up. Quite surprisingly, these people were not fuming mad at the situation, in fact they had expected it. This was not the first time an upgrade had left them without a functioning system.

With just over six months until the introduction of a broad-based Goods and Services Tax (GST), the larger software vendors were trying to belatedly stabilize their software in the field, and as ever, their customers were suffering for it. Knowing that we could do better, we set out to do just that.

Over late 1999 and early 2000 we undertook three months of intensive qualitative research into the needs of retailers, their staff and, to a lesser extent, their customers. What's that? Customers? Yes, I think we are the only people who have ever to looked at an EPOS system from the ultimate end-users point of view. This included such ideas as showing different presentations of the same receipt data to see if customers could find out important information easily; like, where is the store telephone number? Who served you? What is the total tax paid in that sale?

Research on retailers was, if anything, easier. The EPOS package had to be simple to use, robust, secure, and flexible. As with other industrial type applications for RISC OS systems, system cost was not seen as a major issue, reliability was.

We examined four alternative EPOS systems in detail, noting the best and worst points of each, and comparing this information to the data we had collected from our study. One thing was becoming increasingly obvious: we seemed to be the only people who had gone out in the field to talk to retailers.

Australia is a funny place, we seem to be able to take a good idea from anywhere and make it uniquely our own. We inherited pounds, shillings and pence from the old country, and then changed it to a modern decimal system in 1966. Then, thirty years later, we had to break it.. Here are the factors unique to the Australian situation:

Rounding: Although the Australian dollar is a pretty standard currency unit, the actual physical implementation is a little unusual. Our dollar consists of 100 cents, but a number of years ago our Reserve Bank decided to withdraw the one and two cent coins from circulation. We now have a system where the lowest coin face value is five cents. The phenomenon of rounding was born.

Any item which is paid for by cheque, credit card, or other non-hard currency manner is declared at full value. Items paid for in cash may require rounding.

Put simply, 1 and 2 are rounded down to 0, 3 and 4 rounded up to 5, 6 and 7 rounded down to 5, and 8 and 9 rounded up to 10. Easy isn't it, your $1.97 stationary purchase now costs you $2.00 no change in your pocket, no fuss.

The initial reaction of most storekeepers when these coins were removed was to simply round all of their prices to the nearest five cents,

POSum™

Setting new standards in EPOS solutions ...

the POSsum

negating the need for checkout staff to perform any exhausting mental arithmetic. However, the introduction of the flat 10% GST on most goods meant that many checkout staff would need help again with rounding.

```
$1.25 + $0.125 = $1.38
```

So, the software had to cope with two prices in real time; the 'full' non-rounded price for cheque and credit payments, and a rounded total for cash payment. This concept had to be further extended to cover returns and refunds, for example a cheque payment that became a cash return for refund.

Goods and Services Tax

The introduction of a uniform 10% Goods and Services Tax (GST) on almost all items known to modern man has meant that the average retailer can no longer calculate his tax burden manually, he now has the job of collecting revenue for the government. This collected tax has to be remitted every quarter (soon to be optional yearly), accompanied by a statement declaring the GST you have paid and collected.

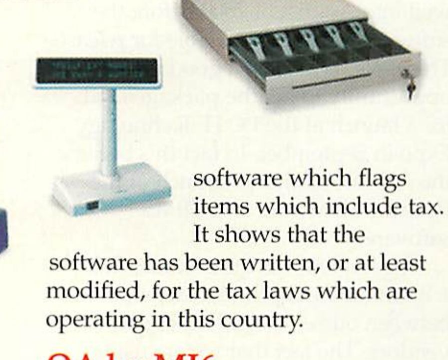
Almost all items are taxed, the main exceptions being fresh food. This is in contrast to a number of other countries, where whole groups of consumables may be exempted.

In an amazing push for non-conformity, the Australian government decided that what you and I know as a receipt will now be called a tax invoice. It even needs to have the words 'Tax Invoice' printed on it, even if it is for goods that don't attract tax at all. The minimum information contained on a Taxation Invoice is stipulated by the government, leaving little room for misinterpretation by software designers and retailers alike.

These two things however do not make the Australian system unique. Singapore too has a GST and a rounding system.

Quite a number of firms and companies in Australia have been using the excellent *Prophet* accounting package to look after their business books. However, when we tried using standard EPOS peripherals with Prophet, we became aware of the program's shortcomings in the areas of counter sales and GST calculations.





We needed something designed more for the front of the store, and less for the manager's office. Having heard whispers of a retail package called EBMS, we made the first tentative contacts with Darren and began discussing with him the results of our research.

The isolation in EBMS of 'front counter' and 'back office' functions neatly solved many of the potential problems we had seen in other EPOS packages, such as screen clutter with information and options not needed by sales staff.

Similarly the variable levels of security for all the functions of the software prevented many of the problems seen in other packages. Incidentally, our major competitor's software allows the cash drawer to be opened by anyone with two key presses, a major security flaw.

Changes to the basic program came through quickly, be they as simple as re-wording a menu item, or more complex, such as making all screen items well defined for colour blind sales staff or those using grey scale monitors.

I like to see an EBMS tax invoice, where only the rare 'non-GST' items are flagged, in contrast to 'other' software which flags items which include tax. It shows that the software has been written, or at least modified, for the tax laws which are operating in this country.

QA by MI6...

Where would we be without the ability to pull a few strings? One of our friends had recently completed his employment as Quality Assurance officer with the software company responsible for marketing the most 'successful' EPOS package in Australia.

As he had intimate knowledge of their software, the only sneaky thing to do was to have him QA EBMS as well. Avoiding the problems inherent in other packages was easier for us, as we had done the necessary groundwork with potential end users.

POSum name

Fairly obvious at first glance, POS for point of sale, and sum for the mathematical summation and the abbreviation of the word 'summary'. Pretty clever eh? But also, the name possum refers to a group of Australian native marsupials, indeed, the tiny Leadbeater's possum used to grace the one cent coin before its untimely removal from circulation. The coin, not the animal...

May 2000 was the first public showing of the system at Wakefield, adorning both the RiscStation stand as a sample of their hardware, and also

on the CTA stand where a pre-production system handled Roy's sales over the two days.

The important thing...

There is an old joke that goes "What's the most important thing in the world timing". Although we had great research data, and were looking at an excellent hardware/software combination, we were way behind all of our competitors in launching a GST-compliant package onto the Australian market.

Indeed, early discussions with Darren had indicated we would be well into August of 2000 before the software was really suitable for release. This gave us at least a good window of opportunity to get the package ready for a launch at the PC IT Technology Expo in September. In fact this became the official Australian launch of the POSsum hardware and EBMS software.

The launch was quite successful, with many in-depth discussions between ourselves and other software vendors. The fact that we are using RISC OS as our base platform gives us an edge that vendors of Windows-based systems cannot compete with. A standard POSsum is a 30 second 'switch on to service' system, a Windows machine can still be running checks at this stage, especially if the system has been incorrectly shut down. Over four days our demo POSsum was reset over 1000 times without losing any transaction data, while we also demonstrated the EPOS terminal doing double duty as a CD jukebox.

Into history

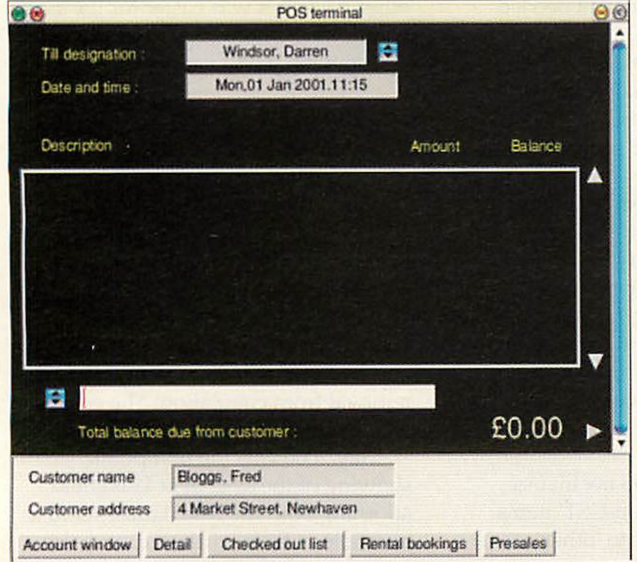
Now, Darren tells us a bit about the history of the software:

I think the best ideas for software come to you when you're using someone else's software and it doesn't quite cut the mustard. Well, that's how EBMS got started anyway. There I was, serving in our local video store, awaiting the next customer complaint, staring at the VT420 terminals attached to an old MicroVax box. Reliable, maybe. And it certainly did the job, but slow it certainly was. "I can do better than that" I thought to myself. The next day I sat at my Risc PC at home and typed in the first few lines of code.

```
REM Electronic Business Management System
REM Version 0.01
REM © Image Software 1998
REM All code by Darren Windsor (started : 04/02/98)
```

Little did I know that this particular beast would take me through three years of late nights, early mornings and God knows how many mugs of tea and coffee. Looking back on it now, if I knew what I'd let myself in for there's no way I would of opened up an empty file in Zap on that particular February morning. Hell, I probably wouldn't have even dared switch my machine on.

So, what was my idea for my new software endeavour? Well, I wanted a simple to use, neat little package for the average corner-store Joe. Nothing complicated by any means. Something that would let a small to medium size retail store practically run itself. First came along the product database, followed closely by the EPOS front-end.



Having worked in the retail trade for a couple of years I had a good idea of what staff liked, what they hated and what made their jobs easier. Invaluable experience. Not many software products get written by users, for users. I guess that's what made EBMS so special. It was being written by someone who understood what the big bad world it was modelling was all about.

So simplicity was the main philosophy.

Next I would say, it would have be auditability, if that really is a word. What I'm trying to get at is the idea of a secure system that can't be diddled. Not just the logging of EPOS transactions but proper processes for the receiving on and transferring off of stock. Not just left to the user to edit quantities in a database — that could be disastrous; the untrustworthy employee would have a field day. No doubt with other systems they do. Not so with EBMS.

Functionality, of course is what makes the software what it is. A careful balance is needed though. Too much functionality and you risk confusing the user. Not enough functionality and you have a system which you can't sell. So what does the average retail business need? Well, as far as stock control is concerned; receiving on stock from a supplier, returning defective or overstocked goods to a supplier, generating automatic purchase orders, placing manual orders and performing stock takes. Customer accounting? Well there's the customer database (fully integrated into the EPOS front-end), invoice reporting, letter generator and job control system.

But the heart of the system has to be the EPOS front-end. That's what the staff are going to be using most of the time, so that's what needs to be 'good'. By 'good' I mean simple to use, yet powerful. A lot of time went into the functionality behind the EPOS terminal. You have the ability to save visits for a later time, transfer them to other terminals (more on the networkability of the software in a moment), receipt archiving, one-key till balancing, till2till messaging, shift logs, automatic promotional discounting ... the list goes on.

So what about network support? There are a lot of EPOS packages out there that only allow point of sale at remote terminals. Not so with EBMS.

The philosophy is 'any facility at any terminal'. Why shouldn't you be able to receive on stock at the shop counter? If you're working on your own you don't have the luxury of nipping out to your back office machine.

About a year into the project I started to look a little deeper at the target market. What businesses were we aimed at. Hmmm... the average retailer. He's a convenience store. He sells the usual stuff. But he also rents out movies and runs a newsagent counter.

Several months later support for rental stock was in. Fully integrated too, not just bolted on. Now EBMS supported video stores (very apt too, considering that's where the idea was conceived). Right now I'm working on newsagent support. This then gives us a package which could be a real market leader. A few phone calls supports my suspicions. "We don't have a system to handle all that; but we want one, when can you come over". Excellent.

Now, why RISC OS? Well this, for a change, is something which is proving to be a strong selling point. I saw an EPOS retailer last week and gave him a demo of a POSum setup, running EBMS. "What do you like about our systems the most?" I asked. "It's not Windows" came the reply.

Exactly. There it is. A market where reliability is so paramount that no longer can the dealer convince himself falsely that Windows is the be all and end all. Did you know that a lot of EPOS software developers resort to DOS-based systems simply because of the reliability factor?

Take an example. You're midway through serving a customer and the lights go out. Following a quick boot up (you're looking under 30 seconds) and you're back where you left off. No disc errors or corrupted databases here. And the 'blue screen of death' is nowhere to be seen.

Take another. You're midway through a stock take and the lights go out. Following a quick boot up you're back where you left off. How many systems can you say can handle that? Not many.

People don't seem to give two monkeys whether the system runs under an OS that they've never heard of when you can demonstrate the stability of it.

So where are we now? Well, first things first, we need a dealer network. That's what Liquid Silicon are working on at the moment. The next step is that horrible 'A' word that the RISC OS market seems to hate so much. 'Advertising'; yep, that's the one. Here's a thought — advertise your products so that your resellers have something to work with. That's what we intend to do. Reseller support in this area is paramount. Not only are we giving them something to sell but we also want to help them sell it. National advertising with local dealer referrals.

So what of the future? Well, we've got a bit to go yet. What we want is a market leading product. One day we will have just that but it's going to take time and a hell of a lot of work. So far it's taken three years. It'd be silly to stop now.

What does it need?

To round up, Alan looks at some of the hardware use can plug into a POSum.

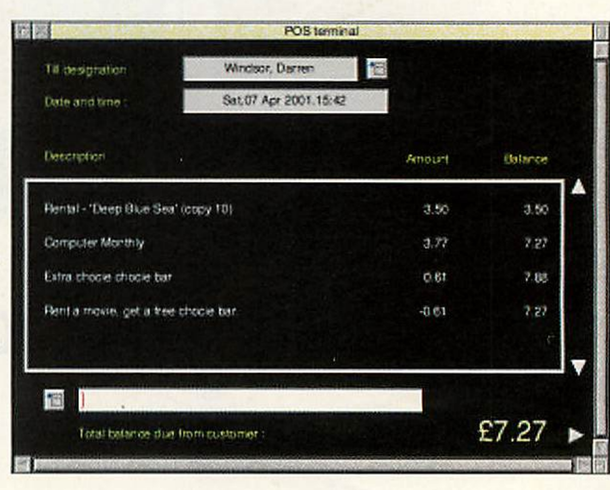
'Quality' is the bottom line for the POSum machines (renamed with one 's' for the UK due to a potential conflict with a Special Needs company). Because we want as low a fault rate as possible, Simtec have designed the POSum using only well-known branded products and are built with mini tower/desktop cases containing their own motherboards.

In addition to all the standard RiscStation features, they are supplied with four serial ports, a power tap for driving peripherals and (in the back office/stand alone systems) internal Zip and CD drives for backup purposes.

Rental status

Copy no.	Status	Last rent	No. rents	Faulty returns	History of renters (last three)		
1	✓	31/10/2000	0	1	001-00003	001-00002	N/A
2	✗	26/10/2000	1	0	001-00002	N/A	N/A
3	✓	-	0	0	N/A	N/A	N/A

We support the vast majority of POS peripherals. A typical system



will have a pole display (the green LED readout the customer looks at), a receipt printer, cash drawer, bar code scanner(s) and possibly a set of measuring scales. Hence the need for all of those serial ports!

The cash drawers plug into the printers and are kicked open when a (cash) sale is completed. We can supply either sliding drawers or flip-top ones. The printers can be impact (1, 2 or 3-ply) or thermal devices. The choices of scanner is much more varied, though.

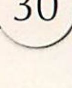
A busy terminal machine will best be used with an omnidirectional scanner. These sit at the side of the desk and scan a two dimensional area, meaning you just present an item's bar code to it and it will be read at any angle. Although these can cost more than the POSum itself, they can reduce serving time and staff frustration immensely.

CCD and laser scanners are used when more accurate code reading is needed or you are on a budget. By accurate I mean having to pick one code out of, say, a sheet of 24 codes — an omnidirectional scanner will think it's Christmas and try to scan them all! We can also supply RF radio scanners for walking around the shop/warehouse and memory scanners which download all the data at a later date.

As Darren mentioned, we are in the process of setting up a dealer network. All POSum dealers go through an authorisation process so that customers can be sure of knowledgeable support and a local point of contact if they need it.

If you would like further information, a brochure, or details of your nearest dealer, please contact:
Liquid Silicon, FREEPOST EH2725
Kirkcaldy, Fife, KY2 5BR.
Tel: 01592 592265 Fax: 01592 596102
E-mail: **sales@liquid-silicon.com**
Web: **www.liquid-silicon.com**

END



Free Ads

• FOR SALE: Two Acorn A3010 computers with TV connectors and disks. Offers. Apply Dutton 0121 308 3286

• Wanted: Any RiscPC email: **ak@anandk.com** Tel: 07967 928551

• For sale: StrongARM Risc PC 26MB (2MB VRAM) 850MB HD + 2GB HD + RAPIDE32 Card. PC CARD Lots of software inc Compo and Impression Publisher. + Printer and Monitor £300 Call 01249 652121

• A3000 with HDD wanted. Can be picked up, 50 quid max. (+20 with MIDI interface) E-mail: **que@nexusdata.co.uk**

• WANTED. Computer Concepts Scanlight 256 + associated software for a Risc PC. Call Doug on 07970 440 532 or e-mail **douglewis@onetel.net.uk**

• Acorn 586 PC card 133Mhz Includes latest version of PC Pro software for Risc PC's £70. North East, buyer collects or pays postage. e-mail: **andy@beebdevelopments.com**

• Ovation Pro wanted. Reasonable price paid. **peeb@cableinet.co.uk**

• StrongARM SA233MHz card for sale £100 ono, Acorn Doom £10, Cyber Chess £10, Dune 2 £7 StuntRacer 2000 £5 (both non-SA), Sound Sampler £10. All must go as I have sold my Acorn. E-mail: **Ben.Penny@BTInternet.com**

• FOR SALE: MenuBar, superior drop-down menu system from APDL. Just £10 inc. postage. WebFX3D, latest version. Create top-notch 3D text and images. £20 inc. postage or both for £25 inc. postage. **ms@arenaman.com**

• 233Mhz StrongARM Risc PC RISC OS 4.02 15in SVGA Monitor CD-ROM 65 Mb RAM + 1 Mb Video RAM 10Gb HD 56k external modem speakers Software Bundle including Internet Apps. Northumberland. Buyer collects or pays postage. for further details e-mail: **sassy@ashcafe**

• Acorn Archimedes 4000 good working order with manuals and Ovation, Eureka, Masterfile, CADet and other software. £150 ono 01903 231520

• Wanted: Network card for SA RPC. Please E-mail me at **ccwilliams@btinternet. com** if you have one going spare for a reasonable price. Chris.

• Acorn RISC 700 PC fitted with StrongARM upgrade; Advance Word Processing Package; CD Player; MIDI Outlets; together with Sibelius Student 7 software package. £400.00 ono. Prepared to sell computer and Sibelius separately. Maurice Woods. Tel: 01275 848982

• Acorn User magazines from Sept 1994 to Christmas 1999 complete with cover discs. Also Archimedes World, May 1992 to June 1994 with discs. Best offer secures this 2 foot pile. Tel: Coventry 02476 319519

• FOR SALE: Castle Technology 2 slot backplane, less than 4 months old, perfect working order, still got lots of warranty period left. Selling to get second slice which comes with new b/p. Visitors welcome to see it working. £30 E-mail **ms@arenaman.com** or telephone 0113 246 5303.

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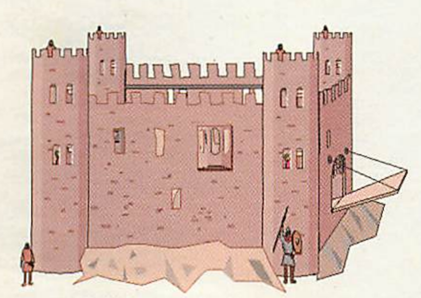
Although we try to publish every ad we receive, we can make no guarantees; publication is entirely dependent on space and time constraints.

Please fill in your name and telephone number below – these will not be published but enable us to contact you in case of any queries. Make sure you include your own town/county in your ad to help potential buyers with their purchasing decision.

Your name:.. Your phone number:..

Acorn's hidden gem

Conway Castle illustration from the SEMERC Treasure Chest CD



The SEMERC Conway Castle

Last month I was privileged to be invited to the Wakefield Acorn Computer Group. Now many of you will be reading this column just after returning home from the Wakefield Spring Show and you may be forgiven for thinking that this is just a touch 'over the top' as a form of thanks for the show.

Not so.

Although I've attended every one of the Wakefield shows (and thoroughly enjoyed all of them) this is about one monthly meeting of the club itself. And I truly enjoyed the evening. Of course they made me sing for my supper!

They put me in front of a RISC OS computer linked to a projector and clipped a tie microphone to me. Despite clashing with a little local event (Leeds United playing at home against some foreign team) the Wakefield Group managed to field a full squad.

I demonstrated the *Draw* Icon tutorial that I included in this column a couple of months ago and referred them (and now you) to the excellent set of tutorials produced by Tom Beeley. One point I wanted to emphasise was the use of *Draw* in education. Here I'm not just talking about school and college education but about your (and my) understanding of *Draw*. It's about you and me learning how to produce useful illustrations using this gem of a program. When I demonstrate the *Draw* Icon Task I emphasise grouping elements that fit together to make one small part of the picture and then to group groups into a larger group and so on until you get one group which is the whole picture.

When I teach it to Y7 pupils I do it knowing that I can return to the idea much later if I teach them modular programming. It's the concept of being able to return to one small part of the program (drawing) and editing it without being distracted by irrelevant bits.

All this from one little graphics program.

One other resource that I demonstrated was a single piece of clip-art. As a resource this must surely be a touch limited you might think — but note that this is vector clip-art. The resource in question is a drawing of a castle; perfect for school and a lesson for us all.

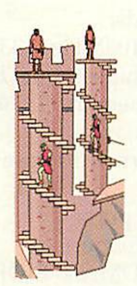
Although it isn't perfect the clip-art uses the ideas outlined above. Selecting the picture and ungrouping separates the castle from the guards. Select a guard, magnify him and he's shown in full detail. Ungroup again and his clothes can be modified and his weapons moved, turned, magnified and copied.

Turning to the castle and you find it can be ungrouped and the front wall removed, showing the inside of the castle with more people moving up the spiral staircases inside the towers — though you'll find that the artist was a touch sneaky with all the people inside the castle!

A guard magnified x3 — and the detail is acceptable at even greater magnification

Remember that this is still just a single piece of clip-art and the whole of this one illustration (of hundreds on the CD) takes up only 141k.

The whole concept of grouping elements of graphics (and using "families" in *Vantage*) is something to take seriously when you produce your own illustrations. Not only does it make your files easier to edit, it makes it possible to build a file into a whole resource in itself — or at least a work of art.



Inside the castle and an artist's short-cut revealed — notice the twin in the second tower

Resources

On eight discs and including a set of printed cards and sheets by:
Tom Beeley
1a Den Hill Drive
Springhead
Saddleworth
Lancashire
OL4 4NR
tom@alfonso.demon.co.uk

Contacting AU

graphics@acornuser.com
John Cartmell



The tension is really mounting now as the shipping date for the Omega draws ever closer — we were writing this two weeks before the Wakefield Show where the prototypes should be demonstrated.

Just to keep your appetites whetted here's the initial selection of extras (and standard kit) that you can plug into the Omega.

(1) 10/100Mbit PCI Ethernet

- RJ45 connector
- RISC OS drivers

(2) PC PCI card

- Supports up to Pentium 3, 300MHz to 1GHz
- Bus speeds: 66MHz/100MHz/133MHz
- System chipset: Intel 82815e
- System memory: 1x168 pin DIMM (512Mb max)
- Lan Ethernet: 10 Base T/100 Base TX protocol
- 2 x serial ports
- 1 x parallel port
- 2 x UltraDMA66 EIDE bus mastering ports
- 1 x mPCI socket
- USB port (via header pins)
- Video 3D graphic enhancements
- 230MHz RAMDAC
- 15 way video connector
- 1x 3.5in floppy disc interface
- PS2 keyboard and mouse ports

Using custom-written RISC OS software the card can also access and be driven from the Omega drives and mouse/keyboard interface with the display on the Omega screen.

(3) SCSI 1/2 PCI Controller

- Transfer rates up to 20Mb/sec
- 32-bits wide
- Supports seven additional devices
- 50-pin internal connector



extras

What you can plug into the new Omega

- 25-way high density external connector
- SCSI filing system
- RISC OS drivers

(4) SCSI 1/2/3 PCI Controller

- Transfer rates up to 40Mb/sec
- Supports seven devices
- 50-pin internal connector
- 68-pin internal connector
- 25-way high density external connector
- SCSI filing system
- RISC OS drivers

(5)Omega utility CD

(6) 10Mbit PCI Ethernet card

- RJ45 connector
- BNC connector
- RISC OS drivers

(7) 56k PCI Modem (fitted)

- Telephone connector
- RISC OS drivers

(8) 56k PCI Modem

- Alternative

(9) 32-bit Sound card (fitted)

- Crystal4281 chipset
- RISC OS drivers

While Microdigital were not happy with the delay caused by the non-delivery of their graphics chips, the change in design has meant that they have been able to include hardware support for rendering JPEGs plus other goodies not yet revealed – we look forward to it. END

Getting wet

Andy Suter describes a novel use of RISC OS machines

Each year I am involved with a rowing race on the River Thames. Not the University boat race — that's a minor race between two local crews. This is the Head of the River race, with over 400 crews from around the world competing, on the reverse of the boat-race course.

In fact there are several Heads — the eight's, the sculler's, the veteran's, the women's, and the school's, as well as those on other rivers — but only the first has the sponsorship to be able to afford video timing of the finish, and a closed-circuit results service. It is this last that involves me.

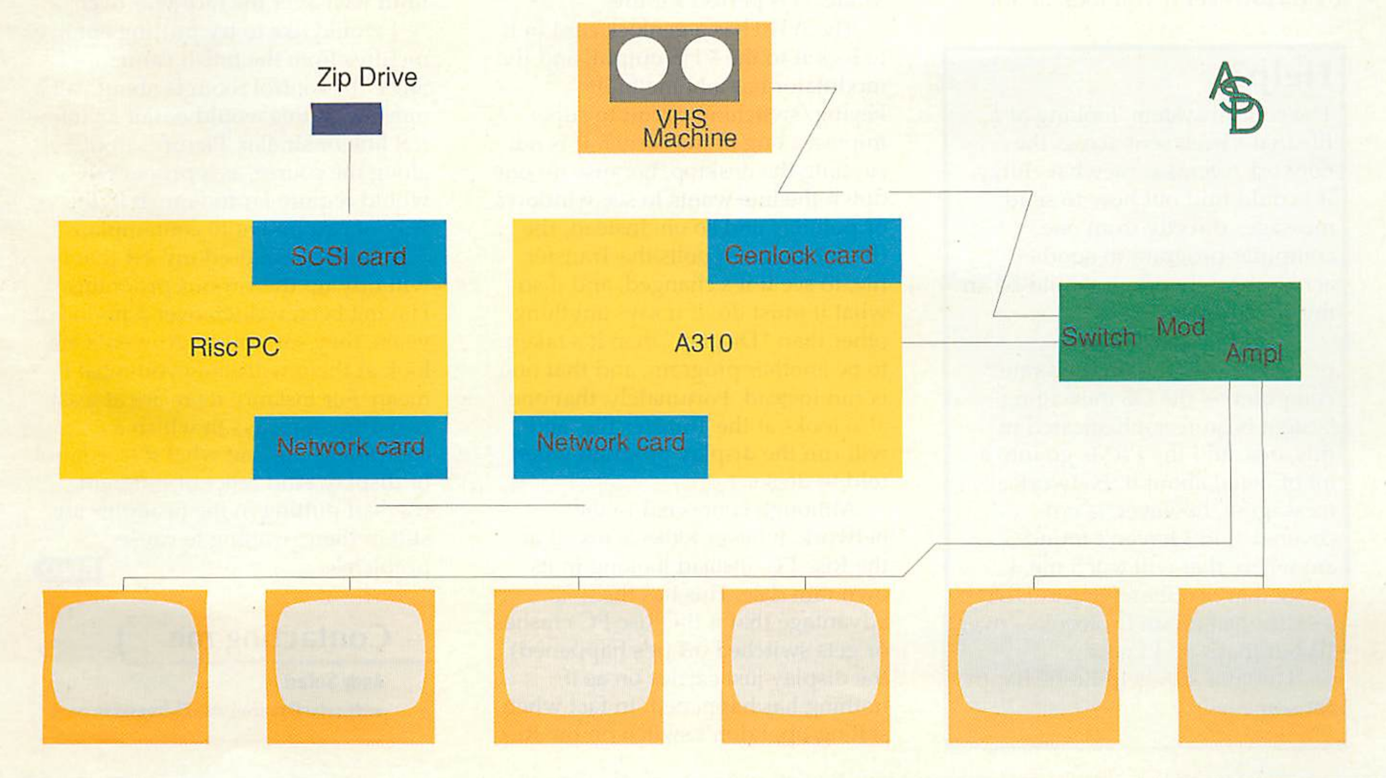
From a base in Putney, we provide a closed-circuit TV service to most of the rowing clubs along that stretch of the river bank. Before the race, it carries videos for the coxes on safety and so on. While the race is on (with that number of crews, it is rowed against the clock, with crews setting off at 20-second intervals, and takes about 2 hours) we show the latest available timings. Throughout the rest of the day, the provisional times go through a process of checking and confirmation, to eventually produce a final result, which we also show.

The system

Although the timekeepers have quite a sophisticated network of computers, with connections via the Internet through Kingston University for start times to be entered, and multiple terminals for manual entry of data, I have always felt that my system should be kept separate from theirs: it means that there is no possibility of either system crashing the other.

However, it also means the data has to be transferred some other way; we use DOS discs. My system takes a text file, reformats it for display, and puts it through a TV UHF modulator for transmission to the televisions. The videos are from a VHS machine, also into the modulator.

I started off in 1993 using an A310



to do everything. This had the disadvantage that the viewers would be treated to a display of my virtuosity with a mouse every time some new information came along, so I used an old BBC B to provide a "holding" screen in between. As soon as the Risc PC came along, I could be more professional: the A310 is used as a display device with the Risc PC as control down Ethernet.

A Basic Wimp program running on the Risc PC takes in the text, formats it and sends it to the A310. It also produces an archive file so that if there's any question we have a record of what we transmitted. When new data is available, or we wish to display something else entirely, such as a test card, a blank screen, or a bug in the corner of a video, a small file called Transfer is sent to the A310.

The screen

You might think that the screen resolution of an elderly A310 was going to be the limiting factor as regards what could be displayed on a TV. However if you look at, for example, teletext, that system manages 24 lines by 40 characters of text.

Most captions on normal broadcasts have far larger fonts, and therefore fewer characters per screen-full. The nominal size of a digital broadcast TV picture is 702 x 576 pixels in black and white, with half that in each direction for the colour information. Mode 35 should give 768 x 288 pixels, with the odd and even fields of an interlaced frame being identical. The text resolution is quoted as 96 x 36, or 8 x 8 pixels per character.

However, for legibility, there should be some blank space between lines of text, and slightly wider characters are more readable, so 12 x 10 is better, giving 64 characters by 28 lines. Then on a normal TV picture the edges are cropped off to reduce it still further. A bit of experimentation showed that 60 characters on 20 lines with a larger heading was the best I could hope for, and still be legible on an often less-than-perfect old television that the rowing club might have in its bar. Mode 35 is perfect for this.

The A310 has a genlock card in it to lock it to the VHS output, and the modulator has a home-built keying/switching circuit to super-impose a bug in the corner. It is not running the desktop, because no one down the line wants to see windows or pointers and so on. Instead, the (Basic) program polls the Transfer file, to see if it's changed, and if so what it must do. If it says anything other than "Display" then it's taken to be another program, and that one is run instead. Fortunately, that one also looks at the Transfer file, and will run the display program when told to do so.

Although connected to the network, it never looks across it at the Risc PC, instead looking in its own ram disc. This has the advantage that if the Risc PC crashes, or gets switched off (it's happened) the display just carries on as if nothing has happened. In fact when setting up, I don't switch on the Risc PC, just leaving a test card up for the TVs to be tuned to.

If all else fails...

Other safety features built in: if the discs on either computer die, they can boot from the other via the network. The Risc PC has a zip disc it can boot from, and so can the A310 via the network. And the suite of programs is small enough to fit on an 800kb disc (without any archive facilities) so either or both can start up from floppy. I have a spare A310 just in case, which at a pinch could be made into a control computer if I had a second network card, and I plan in the future to arrange for control down a serial port to get round that problem.

Other things I want to do: collect the data either via a serial link, or via the network through an old Pentium computer I happen to have, which should be capable of acting as a bridge to isolate my system from the timekeeper's system. One year we tried using a serial link, but that year the Kingston computer crashed, and we got no data at all from the start until well after the race was over.

I would like to try putting out live pictures from the finish camera. Since the control room is about half a mile away, this would entail an infra-red link or similar. Pictures from along the course, as a proper OB, would require far too much in the way of equipment to contemplate.

I've also promised myself that I will tidy up the various programs. Having been written over a period of years, they sort of just growed! One look at them will show you what I mean. For instance there are at least two different ways in which a computer finds out what it is, control or display. And relics of different ways of putting in the headings are still in there, waiting to cause problems. END

Help?

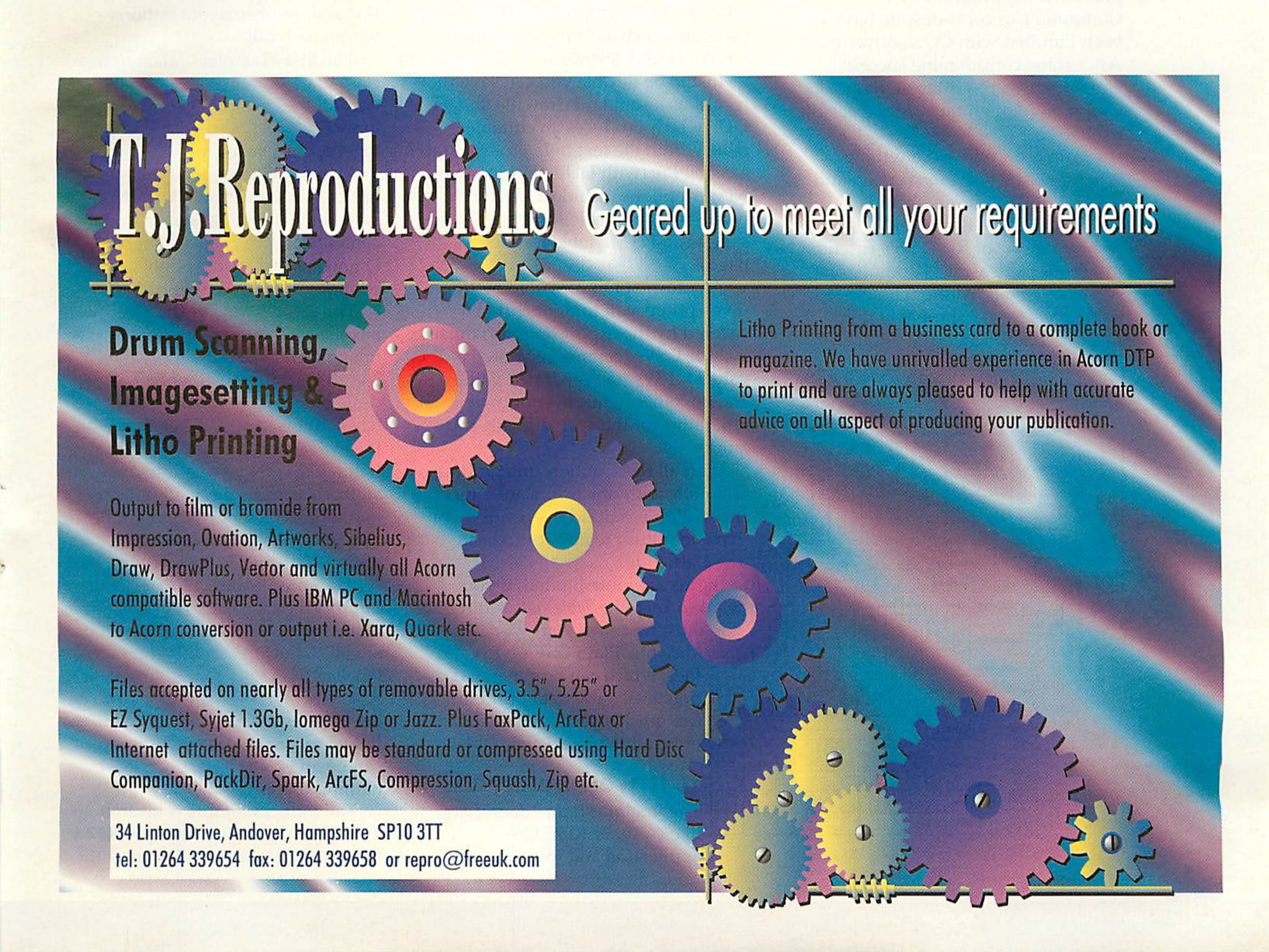
The control system, looking at a file that's been sent across the network, seems somewhat clutzy. If I could find out how to send messages directly from one computer program to another across the network, it would be an improvement.

I could do this between programs running on the same computer — the OS messaging system is quite sophisticated in this area, and the PRMs go into a lot of detail about it. Network messaging, however, is not covered, and I haven't found anywhere that will teach me. I know that the ShareFS uses UDP — User Datagram Protocol — over IP, but that's all I know.

If anyone can help I'd be happy for some help.

Contacting me

Andy Suter:
andy.suter@sunningdale75.freeserve.co.uk


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Easy grids

John Cartmell takes a new look at a practical product

Perhaps many of you know of *TableMate*. It's the freebie that arrived with your *Impression* DTP program from Computer Concepts which allows you to produce tables easier than trying to do it in *Impression* directly. It's fairly OK but strictly limited.

Isn't it?

If that's your understanding then you may have been right once — but it's been a long time out of date.

Tablemate went through a number of upgrades by Dalriada who produced the program (not Computer Concepts despite having been bundled with CC's software). After some considerable success *TableMate* was rewritten as *TableMate Designer* although the original is still available as *TableMate Classic*. It's some time since I used anything other than the designer version and it's that that I'll discuss here.

TD (putting it in a friendly fashion) is one of RISC OS's essential programs. At least it's certainly one of my essentials. Along with *Pluto* and *Organizer*, it is probably my most-used application.

Examples 1 to 3

My comments are based on version 5.02a (January 2001) and experience of practically every version from that bundled with *Impression Style* onwards. Recent development has been spasmodic though most bugs that were introduced at the start of version 5 do appear to have been ironed out.

What is it?

TableMate Designer is about producing tables of text and graphics and producing files in a modified version of the drawfile. This will OLE just like a graphic in DTP programs such as *Impression*, *Ovation*, *FireWorkz* and *Textease*.

Just to be flexible you can save the results as a standard drawfile and as DDF which produces an editable table within the text in *Impression* and *Ovation Pro* (with DDF filter loaded). Newer options include a save with hard spaces (suitable for e-mails) and save as an HTML table for Web pages.

Any format not provided by the save options will undoubtedly be covered by the export options which include CSVs (comma separated values), TSVs (tab separated values) and an 'other' (choose your own separator) for the very difficult and quirky.

With all these options integrating *TableMate* with practically any other application is a doddle — even if you have to output to applications on the Dark Side.

Inputs are more limited: if you want to keep the *TableMate* settings you must first save your work as a *TableMate* file. Plain CSV or TSV files, which can be generated by practically any data program, can quickly produce new tables or be added to existing tables.

Is it well behaved?

The first question, "does it act like a proper RISC OS application and integrate with other software?", has been answered with a resounding Yes!

Text and graphics can be included in any rectangular array of cells. The lines of the cells can be modified (colour, thickness, doubled or disappeared). By changing the colour of specified cell boundaries to white the appearance of non-rectangular arrays can be produced.

Of course the contents of each cell can be modified; the program includes standard controls for text styles, colour and cell background colour. In addition there are simple text and number layout options within each cell.

The first example is taken from a class mark/absence sheet. By the way all the examples were produced to satisfy a real need — and often put together in a very limited time frame.

Many of the frequently used options have their own button on the bars at the top of the screen and the contents of each column can be aligned as text (four options) or to a configurable decimal point.

The second view of the same file has the caret in the top line which is imaginatively labelled *Ruler2*. If I hadn't been in a rush when I designed this table I might have labelled this *Months*. Note that with the exception of the green and red holiday dividers the columns are aligned centrally. Each alignment marker can be moved individually or the columns selected and the appropriate button chosen.

Example 3 is the same file again but this time the caret is in one of the name rows and the alignment stops are all to the left and this ruler is labelled Standard. this is the ruler style you start with and any row can have alignment (and other attributes) linked to a named style. Other rows can be given all those attributes by naming it appropriately.

The fourth example is taken from a simple duty roster that I produced for The Bank at Sale pub (where the

Examples 4-7

Manchester Acorn User Group meet). The original had more staff and the landlady needed a quick and clear graphical display of who was on duty at a particular time and which member of staff was in charge at a certain time. The table is a simple rectangular grid with some grid lines coloured white to produce the 'isolated bars' effect.

The use of white lines is also used to good effect in the next example which was a design produced to set out one part of the National Curriculum such that teachers might have a fighting chance of understanding, and referring, to any particular part of the curriculum.

Note that the heading spans three columns and the side headings span 3 or 4 rows. looking back at the first example and you can see that 'Tuesday 5' (the fifth lesson on Tuesdays) spans 2 columns and 2 rows. TD also allows text to be placed in three positions vertically and, in this case, the text is centred vertically.

A more complex table is shown in the sixth example with use of white lining and spanning to help set out a complex set of information — in this case part of an outline for schemes of work for three years showing changes from the previous years outline.

The final example shows two more options available in TD. Graphics can be inserted into any single cell, as illustrated by the pictures of the board games, or in a spanning cell like the 'Fleur Designs' graphic. The second option is shown by the description of the game type where the heading is too long to fit horizontally and has been turned to a vertical position; upside-down and the other vertical position are also available.

More complex options include

- named colouring styles that allow contrasting background and text colour to be set and to be set to alternate across rows or columns or be displayed eg every fourth row;
- underline, strikethrough and small caps in addition to the text styles on the buttons;
- named styles (as well as named rulers);
- lines can be varied in width or pattern and double with adjustable space between pairs;
- line patterns can be designed and named by the user;
- a currency symbol can be set and numbers manipulated as in a simple spreadsheet;
- there are basic find and sort options;

Although TD has no internal graphing facilities it does hot-link to *GraphMate* — also produced by Dalriada, and of course the CSV export can be output to most graphing programs and spreadsheets.

Wrapping up

So far the recommendation has to be a clear 'go and buy' but there are buts. Not all the bugs have been removed from this version of the program. There has been an intermittent fault that loses all your work and I have got into the practice of saving the file regularly and frequently as tables became more complex. In the process of this review I have finally identified one repeatable problem that I'll be notifying to Dalriada.

The program allows you to print a table directly at any magnification and shows the 'fit to page' magnification. In addition, of course it can be OLE'd into any DTP program and printed from there. Printing direct sometimes loses the bottom line and, more worryingly, graphics are sometimes only partially printed out.

The Fleur Designs example caused particular problems as it included 11 complex graphics and the only method of being sure of printing all the graphics in full every time was to save it as a drawfile and load that into *ArtWorks*. A bug, but given the easy linking of files between programs, a bug with a solution. The final 'but' has to be the support.

Although the author, George Buchanan, is invariably helpful the software now seems to be strictly only part-time.

Despite these problems *TableMate Designer* is, and will remain, an essential on my hard drive. The bugs are there but certainly haven't stopped my IT groups from making excellent and adventurous use of the program — as a comparison they encounter more bugs with *Eureka*.

Like any good RISC OS application, TD doesn't try to do everything but rather it concentrates on its speciality. If you want to manipulate text and numbers use a database or a spreadsheet; if you want to display a selection of that information use *TableMate*. END

Product details

Product:	Tablemate Designer 2
Price:	£64.50 (upgrade discounts from earlier versions, including the version supplied with Impression)
Supplier:	Dalriada Data Technology, 74 Greville Road, Warwick CV34 5PJ
Tel:	01926 492459
E-mail:	sales@dalriad.demon.co.uk

Under the hood

NetInfoCast uses RISC OS for information display, an exclusive report for Acorn User

From the 17th floor of an office block in Christchurch, New Zealand, NetInfoCast Limited (NIC) is planning the future of low-cost information distribution over the internet. Rather than users sitting at PCs accessing Web sites, it is RISC OS-based Set Top Boxes automatically selecting and downloading information.

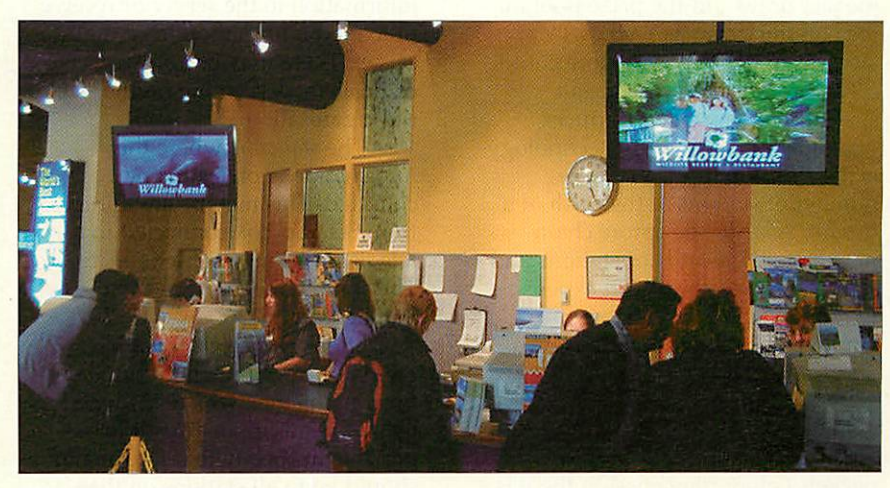
Information kiosks have sprung up all over the world as a useful way of delivering information for tourists, students and travellers alike.

But information kiosks need regularly updating. This can be performed manually by visiting each site and putting an update CD in the machine. It is even possible to visit the site, connect a mouse and keyboard, and download new content from an ftp site and install it on the kiosk.

But manual updates are expensive, time consuming, error prone and slow. They generally require the kiosk to stop operating while the update is in progress. Using the Internet requires an expensive fast link to get the information downloaded and installed as quickly as possible so the installer can move to the next kiosk. Imagine being responsible for manually updating 5000 kiosks spread around the UK – every month.

Now imagine that different kiosks need different information based on their location or purpose.

Many information providers have struggled with this problem and have come up with clumsy, unreliable, proprietary solutions. But these companies would be far happier to give this difficult but dull task to experts and concentrate on what they are good at:



producing more up-to-date and accurate information.

Synchronisation

NIC's technology solves these update problems using an Internet connection to one of its servers. The information is then split into packets and streamed down to the kiosk at a defined maximum rate per hour, without interrupting its normal operation.

When everything is ready, the new information is 'made live' at the appropriate time. The Internet connection can be anything from an analogue modem to ADSL, even wireless data over a GSM network. The connection may only be 'live' for a few seconds or minutes every hour.

In fact information flows both ways and the stations can take many forms. With an electricity meter station, the information is the meter reading, which flows back to the server. With an information kiosk station, new information is downloaded and usage statistics are uploaded.

NIC's company name is derived from the words 'Network Information Broadcasting'. The idea is that information is placed in a central server farm, along with instructions on where and when it should be distributed. Then stations connect to the server farm to download instructions and the information.

Effectively the information is 'broadcast' over the network, although there is much more control of how and when this is done than with television broadcasting, for example. In an extreme case, each station can receive its own 'personal' broadcast, more commonly know as 'narrowcasting'.

Applications

The technology has many applications in addition to information kiosks. Non-interactive applications such as currency boards in banks and video advertising terminals in a shopping mall can update their information using the network. Utility meters can be read automatically and frequently.

A travel agency can display last minute deals, updated as availability changes. A staff training system in a

Product
Pricing/promotion
Decisions

Content Controller

Content
Scheduling

Server

Content

Display & Station

large corporation could receive new information ready for a regular morning briefing. A lottery company could display results from the last draw and the prize pool for the coming draw, as well as TV advertisements. A book store could show promotional videos and special offers for new products.

A major benefit of the technology is the ability to update a large number of stations at the push of a button. A large book store chain may have thousands of stations and it may be impractical and expensive to require staff at each store to manually update the stations on a regular basis.

What information?

Since information is split into packets before transmission there is no limit on the size of data that can be transferred. MPEG2 video files containing television ads can run to tens of megabytes. A background picture for a currency board may be less than one megabyte.

Some advertising text about last minute travel deals may be less than one kilobyte. The system takes all this information and streams it to stations packet by packet.

The priority of each piece of information can be assigned in various ways but NIC has developed technology to ensure that small pieces of information which require regular updates are not swamped by huge video files which are updated less frequently.

Text, graphics, video, sound and many other types of information can be transferred. In fact, any digital data is suitable.

System overview

NIC's technology splits into three main parts:

- The *server* holds the information to be downloaded to stations, or information which has been uploaded from stations. There are many servers linked together in order to spread the load.
- The *controller* allows an organisation to send new information to the server or receive uploaded information from the server. There may be many controllers, depending on the size of the organisation.
- The *station* is where the information is presented or collected. This may be anything from Set Top Box connected to a television, or an electricity meter. The station does require some intelligence.

Stations can be grouped by region or function, and ultimately form a 'channel' which is 'owned' by an organisation. Thus it is possible to specify that information should go to all stations on that channel worldwide, or only those in the UK, or only in Gloucestershire, or only in Chipping Campden, for example.

Electronic display

One early market which NIC has entered is electronic display advertising. One customer uses a Pace Set Top Box (STB) connected to a large-screen television, such as a plasma display. The system plays continuous silent advertising in a public place.

The advertising consists of MPEG video, still graphics and overlaid anti-aliased text. Advertisers purchase slots just as they would with a television channel, although at significantly lower cost. Where an advertiser does not have suitable TV-quality video to use, stock video or a still background can be used.

The advertising material is updated by a person using the controller. This person designs the ads and schedules them to play on the various stations. Additional material is automatically retrieved from third parties for distribution to the stations, for example Reuters news and local weather. NIC's servers ensure that the ads are delivered to each station before they are needed.

The station

A station is not just a dumb terminal. It is capable of connecting to a server, sending any information it has, and requesting any new information for itself. The information is often stored locally in flash memory or on a local hard

Why choose RISC OS?

NIC's station software runs on Linux or even Windows. Why did they choose RISC OS?

'RISC OS is a reliable state-of-the-art OS', says Steve Simatos, Technical Director at NIC. 'It has excellent display facilities including the essential anti-aliased outline fonts, MPEG video, graphics and JPEG images. It has full support for IDE drives, ethernet, internet, serial, keyboard/mouse and many other things we find useful. It is also very reliable.'

This last point is important since NIC is selling the idea of autonomous operation. 'It would not look good if customers had to reboot the stations on a regular basis due to crashes', Steve says. Although NIC do not have reliability statistics yet, Steve states that RISC OS 'basically never falls over'.

'Some other platforms are not designed for unattended operation,' Steve asserts, a polite reference to the 'blue screen of death' lock-up people sometimes notice on information kiosks. 'Not that we don't support other platforms, it's just that there is little point in taking the risk, when the underlying OS is hidden from users anyway'.

Doug Pauling, NIC's Marketing Director has been involved in the Acorn/RISC OS market for many years. He ran Acorn New Zealand at one point. 'I am pleased that Pace have taken on RISC OS and I'm thrilled about the plans they have for it. RISC OS has a bright future in my view'

Electronic Display Advertising Hardware Specs

Station	Pace STB24 or dsl4000, Internet connection by ADSL or V.90 modem. Plasma TV for visibility or LCD TV for smaller point of sale applications.
Servers	Linux x86 hardware running *S-Base* Linux with dedicated internet connection.
Controller	Risc PC running an advertisement designer package written using *S-Base*. ADSL internet connection.

disc. Where information is already present on a station, it is only transferred again if it is updated.

Some stations may be very simple — a tiny ARM-based board with some RAM and flash memory and a GSM module would be enough to act as an electricity meter station. Others may be more complex.

For electronic display advertising, NIC uses Pace STB24 and dsl4000 STBs which are similar to the Acorn A7000 and A7000+ except that they include on-board MPEG hardware. Some STBs have built-in ethernet for use with ADSL modems, otherwise a serial port is used to communicate with an external analogue modem.

The server

A server holds information destined for stations and any information received back from those stations. It uses a proprietary MTP protocol to communicate with stations and controllers.

The server code is all written using *S-Base*, a development environment originally written for RISC OS. However, *S-Base* has been ported to Linux and the servers all run on a Linux platform. This allows NIC to use hardware designed for server farms, which while expensive, is better suited than Risc PCs.

However, server development is performed using *S-Base* for RISC OS since it offers a more user friendly environment. The RISC OS and Linux versions of *S-Base* are fully compatible.



For more information about Pace STBs, see **www.pace.co.uk**

The controller

The controller is to some extent custom software. It specifies which files should be on which stations and where they should go. It also controls which data is retrieved from stations and how often, as well as where it goes from there.

S-Base is often used for writing the controller since it speeds up development. NIC have a core set of tools for writing controllers. For display advertising, they simply added a front-end to the existing tools which allows a user to lay out advertisements.

The controller generally runs on a Risc PC although NIC do have a Linux option.

The future

So where to next? There is plenty to do, according to Simon Glass, Operations Director at NIC.

"We are excited about forthcoming Set Top Box hardware from Pace. It takes us a bit of time to put a new platform into service, but with much higher performance and all the usual RISC OS bells and whistles, we should be able to break new ground in a number of areas', Simon enthuses.

He is also interested in the possibilities of wireless data. 'GPRS [fast packets switched data over the cellphone network] is arriving this year in several countries.

We will be looking at this for vending machines and other applications where a dedicated phone line is too expensive or impractical to install. Information delivery to cellphones may be another market for us in the future'.

Greg Lancaster is CEO of NIC. With a background as head of New Zealand's largest electronics retail group, he is enthusiastic about the potential for NIC's technology in retail and other areas. 'We have some leading-edge technology and the hardware to back it up. It has been proven in operation. We are looking for partners worldwide in about 10 market segments and we plan to set the standard for low-cost information delivery.' END

Contact at:

info@netinfocast.net
Web Site: www.netinfocast.net

About S-Base

S-Base has been around for many years. It was originally published by Longman Logotron as a programmable database. Now it is promoted by Bluewater Systems Ltd in New Zealand as an integrated development environment for RISC OS.

It includes a programming environment with database facilities, a programming language a bit like BASIC and C, a screen/report designer, event handlers, an integrated text editor and many other features.

S-Base has been used to develop a number of large and small applications. It is very handy for quickly putting together small, visually-appealing applications.

Development in *S-Base* is generally much faster than C or other high level languages because many building blocks, such as input formats, printing and database facilities are provided. It is also much easier for beginners to get to grips with than C.

The latest released version of *S-Base* is 2.4i, although a new version with Unix compatibility is nearing the beta stage of testing. There is a user group on the internet. **www.bluewaternz.com/s-base**



Looking to the Future

Freedom2, formerly known as *Argo Internet Services* and recently been spun off from *Argo Interactive Group plc.* are committed to delivering high quality Internet services to education, business and home users.

The **F2** team supply high quality services to **Argo*Net*** customers with improved mail and web servers, increased support hours and the addition of extra staff to our technical team. We fully expect all Freedom2 customers to benefit from the continued development of our new Internet backbone and growing stable of products, and in the spirit of cooperation we are opening up parts of our Voyager software as open source to the RISC OS community.

F2 aim to introduce a series of great new services, starting with a simple to use online web page creation system to build an entire web site in minutes. Freedom2 and Navaho Technologies have also worked together over the last year to launch a new Internet service for schools, ***Passport2Learn***, including a platform-independant management system, high speed unmetered access and a dedicated support team.

"*The Passport2Learn system has revolutionised the way we use the Internet. Like all teachers, we are worried about students accessing inappropriate material and thus we tended to allow access on only a limited number of computers that we closely supervised. Now we have 1,500 students using over 200 computers in classrooms and open access areas with complete confidence*", said Richard Healey, of Caludon High School in Coventry.

Many of our new products are offered at preferential rates to Argo*Net* customers. For example we have professional server hosting solutions for customers with heavy duty web site needs. Based on Sun Cobalt hardware and housed in a world-class hosting facility, this represents excellent value for money.

For further details please visit our new website at http://www.freedom2.com/ or contact us at address below.



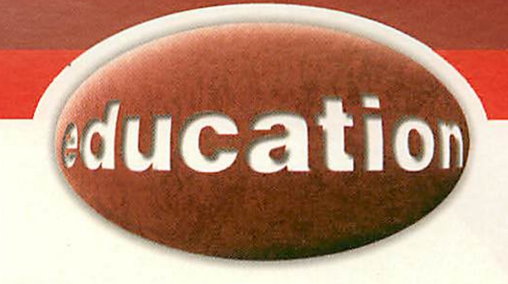


safe, secure internet access

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Treasure hunters

For treasure fanatics Kit Williams' book and hunt for the Golden Hare was only the start. There have been other books and CD-ROMs to test cryptic reasoning and general knowledge.

You can now win $1,000,000 which could be anywhere in the world. All of Max Valentin's complex puzzles must be solved online.

Following the adventure from Paris to Egypt you'll have to read scrolls and delve into the mythology of the Nile — which could take you anywhere in the world. Your efforts in Treasure Hunt 2001 will be translated by SCOL or Standard Cryo Online Language created by Cryonetworks.

To give realism to the quest the site is developed in 2D and 3D with video clips, chat, and shared events. The prizes are real and spectacular with the final challenge to discover the combination which will open the secret drawer to reveal the Black Diamond of Soleb – a 22 carat black diamond.

So get hunting on **www.th2001.com**

Doubt not

Prize-winning author of children's favourites *Mrs Doubtfire, Crummy Mummy and Me* and *Diary of a Killer Cat,* Anne Fine, was at Forest of Teesdale Primary School in County Durham to launch a series of Author Modules for the Espresso for Primary Schools service.

The service delivers weekly feeds of bandwidth-hungry video-rich educational resources via satellite. The new Author Modules features Anne Fine filmed at Barnard Castle talking about her books and offering advice on how to become an author.

She is also joined by Dick King-Smith who answers questions on *The Sheep Pig*, Allan Ahlberg talks about *Cops and Robbers*, *The Jolly Postman* and *Other People's Letters* as well as two of his poems, *Please Mr Butler* and *The Supply Teacher* while for Reception-aged children, Shirley Hughes comments on Lucy and Tom at the Seaside.

For more information contact Espresso Broadband at (+44/0) 20 8237 1200 or visit **www.espresso.co.uk**

Anglian update

Primary subscribers can now access the second of Anglia's World Level Work units, designed to offer supporting activities to go with their online Big Books. Now Key Stage 1 pupils can explore phonic groups and test their spelling with the Big Book 'The Storm'.

Meanwhile, for Key Stage 3 and above there's a new history package developed with Mackenzie Ward Research.

Aimed at students aged 11-16 (Key Stage 3/4), Images of Peterloo looks at the events of 16 August 1819, when approximately 60,000 people assembled in St. Peter's Field, Manchester to air their grievances – with disastrous consequences.

The unit contains contemporary images which offer contrasting perspectives on the events of that fateful day, and asks students to formulate their own opinions using the primary source materials available.

Stuck for ideas for assembly? Then there are two new assemblies finding a home in the 'Education matters' section: 'Another new beginning' (for Primary schools) and 'Let's time travel' (for Secondary schools). For these and more assembly ideas visit the Assemblies Matrix.

www.angliacampus.com

In brief

The planning cycle

Want help with your planning? Then take a look at *LessonMaker 3* for Key Stages 1 and 2 with additional exercises to adhere fully to the updated QCA's document Information Technology - a Scheme of Work for Key Stages 1 and 2. *LessonMaker* comprises a series of detailed on-screen activities covering all 31 areas in the QCA Scheme of Work document. *LessonMaker* includes a word processor, art package, maths and data handling, spreadsheet programs as well as a control package.

Also new to the package is a Web site containing constantly updated and colourful QCA exercises for use with different sections of the program. Just download a template from www.r-e-m.co.uk.

Only available for the PC at present the whole package includes sets of lesson notes and plans explaining each activity and key skills and concepts covered. For more information contact: REM (+44/0) 1458 254700.

Best sellers

REM (www.r-e-m.co.uk) have initiated a best seller list of educational software. And being the UK's largest independent supplier of educational software, they should know. So topping the poll at present is *Dazzle* (SEMERC), followed by *Textease V5* (Softease) and *Clicker 4* (Crick) in third place.

Can you help?

An ICT technician in Norfolk is desperate to find a supplier of reasonably priced replacement mice for his Risc PCs. One supplier quoted £25 each which is way too much. Is there anyone who can offer him a better deal?

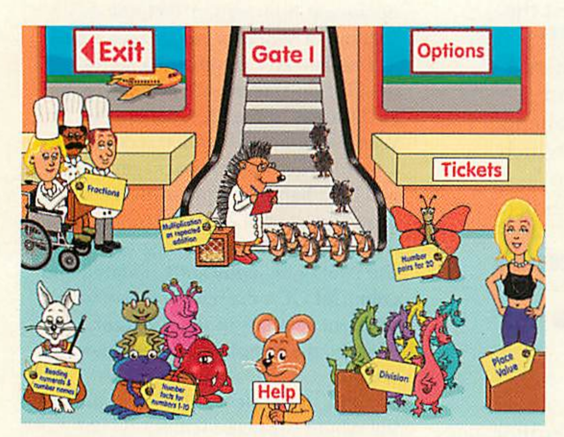
Next, a small steelwork fabrication company has just started using ProCAD and needs some training! Can anyone help?

• If you can give any advice on these problems, please send these to Education Editor, Acorn User, Tau Press, Stockport Village, Stockport SK1 1DQ. Or use the e-mail address below.

Contacting me

Pam Turnbull:
educ@acornuser.com

Fasten you



If you feel you need to get away to find some sun, then why not try out ChedAir? Waiting at the airport for departure are seven other parties, from a group of injured hedgehogs to Debbie Diamond the international singing sensation. But these personalities are just a front, a disguise – their real agenda is to make key objectives for Year 1 and 2 children fun to learn and enjoyable to consolidate.

Your guide to this world of mathematical knowledge is the gameshow host's gameshow host, Murphy Mouse. Always urbane, with a ready (if not always successful) quip on his lips or dance at his feet, he will give you advice and help, talking you through the concepts and using just the right mathematical language.

Setting the scene

Teachers can set what activities are on offer, the number range, volume, level of activities and number of play throughs. All of these are accessed through the *Options* button. You can also type in class lists/groups (of up to 40) from here if children are not able to type in their own names when they 'buy their ticket'.

As an added bonus for fitting this program into the classroom delivery of the Numeracy Hour, are 31 worksheets/resources provided on the CD as simple sprite files all related to the on-screen activities. A ReadMe file details which each sheet includes from number names ninety to one hundred to incomplete addition/subtract facts for 10 or a board game to practice understanding and vocabulary of multiplication as repeated addition.

The Level being played is shown in the lounge as the Gate number - the default is Gate 2. From here children buy their tickets/log into the program (if it has been installed). You can run from the CD-ROM with no installation, but the program won't then monitor children's progress.

Accessed via the Options screen the Record Keeping screen records which activities have been completed rather that how many the children got wrong/right. This record keeping is printable, automatically saved on your hard disk and updated each time the software is used, but I would like more information as there is no way of telling from these records which children struggled.

Ready for take off

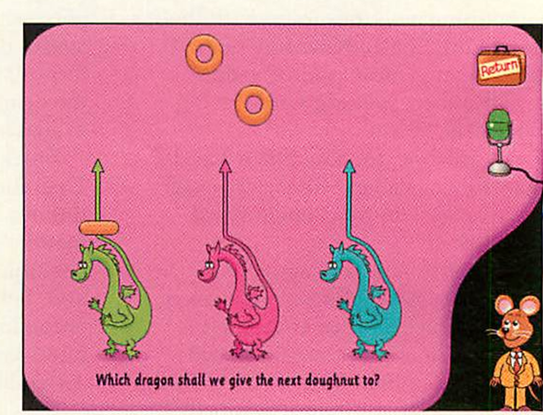
Murphy is on hand to reassure any reluctant travellers and all children need to know is that when the microphone is green it's their turn and that clicking on it means a question will be repeated. Also that clicking on the suitcase at any time will transport them back to the Departure Lounge.

Fractions is as good a starting point as any, and here you'll be accompanying The Cooky Spooners on their flight. Through Gate 1 children click on various pizzas thus cutting them into halves or quarters. There is a lot of initial modelling or controlled answers in all activities at this level and with progression comes more free choice.

The manual is well detailed and each level of each activity comes with clear key teaching objectives highlighting the appropriate resource sheet. These sheets can be used in different ways for the different levels and come with teacher's notes within the manual. They can be edited and will spark ideas of your own – all you need is some time to put them together!

Gate 2 for fractions required pupils to identify which pizza has been cut into halves or quarters nicely reinforcing the physical cut as well as the notations *1/4* and *one quarter*. This is carried further in Level 3 with children having to responding quickly to questions, emphasising what makes a half and the importance of the halves being equal. I liked the way the vocabulary is used here in a gentle but consistent gradient.

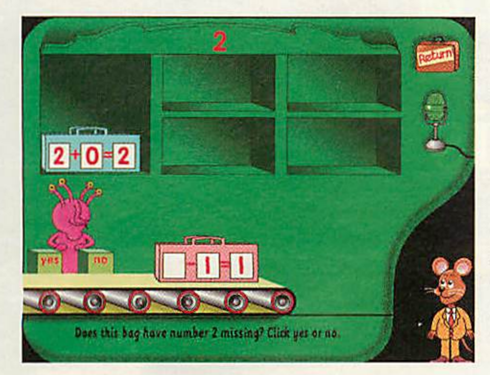
Throughout the activities, Murphy Mouse provides the instructions and asks the questions. Questions are aural and visual and if a child gives a wrong answer, Murphy asks her to try again and repeats the poser. Get it wrong again and Murphy will give the correct answer. Finish the set and you can choose to repeat the questions or try





r seatbelts

Ready for take-off? Pam Turnbull looks at the big brother to Number Train



pastures new.

Leaving the cooks (including one in a wheelchair), my group of testers had to click on Dr Prickle. This caring creature was transporting her hedgehog patients to hospital and was very concerned that she may lose her small charges in such a place. This called for repeated addition - multiplication.

The aims of this section start with beginning to use the appropriate language and to convey the concept of multiplication as repeated addition going on to use this practically and in context with the correct signs before developing vocabulary further and working on speed recall of 2, 5 and 10 times tables. Put the right hedgehog in its box by matching the answer to the question at the bottom of the screen – hurry up you've got nine to house and the flight's been called!

In activity terms this section begins by modelling two ways of recording the total of injured hedgehogs – repeated addition or multiplication – and you can specify the tables used (from a choice of 2, 3, 4 and 5) up to a maximum answer of 20. An interesting point is that the hedgehogs are displayed as an array which isn't mentioned in the program but is commented on in the manual as an additional teaching point. Levels 2 and 3 add to this by reinforcing the initial idea using mental strategies and recall of learnt tables.

I found this worked well with children who had learned their tables in sequence and needed a context to use this knowledge randomly. This does not (and doesn't pretend to) be a complete multiplication learning or practice tool but it is one I will be adding to the repertoire, so on to divisions to see how that shaped up.

This is the territory of the Doughnut Dragons. Nearly as cute as the hedgehogs, this was a hit. At the lowest level children have to share doughnuts equally between the dragons after watching a model – you have the choice whether you want children to divide by 2, 3, 4 or 5.

This then enters the territory of repeated subtraction when you go through Gate 2. Murphy needs to know how many dragons can have a certain number of doughnuts each if he's got so many. Here you can set the division to 2, 3, 4, 5, 6, 7, 8, 9 or 10 although space means that the maximum you can have on screen is 20 with 10 dragons. As with previous games, the final challenge is nine varied questions rapidly recalling facts or applying the strategies they know.

We were now left with Mr Flopear and reading numerals, The Zogs with addition and subtraction, Florrie Flutter with number pairs, or Debbie Diamond's place value.

The aliens won, so off we went through the Gate with The Zogs. Concentrating on addition and subtraction facts up to and including 10, you can specify the numbers you want to concentrate on specifically via the Options menu. Children simply have to complete the number fact on one suitcase at a time, to decide which bag belongs to Zog.

At Level 2 this is developed further and this time they are shown three number facts, but with an element missing. Stressing mental agility they must complete all three to secure the missing bag. And so on to Level 3 where these number facts are fully consolidated by working quickly to find the right cases before they disappear from sight.

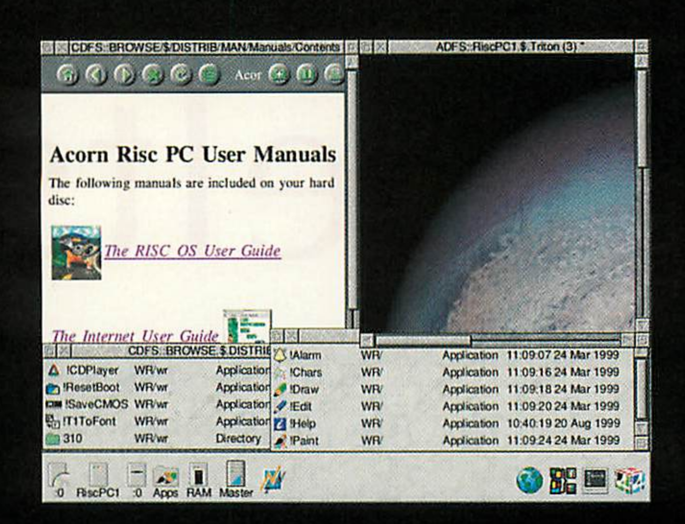
Sherston suggest that Number Plane can be used for whole class/group teaching, or individual/group focussed independent work and this package would work well in any or all of those contexts. It is worth targeting the activities through the number ranges being worked on as well as by the Gate/Level even though this takes a little more time and the incorporation of the resource sheets is effective.

The graphics are large and bright but are nothing spectacular, this is in essence a solid piece of classroom programming which can be used to work on specific weaknesses or to support the Numeracy Hour. In fact another one for the shopping list. **END**

Product details

Product:	Number Plane
Ages:	6-7
Price:	£42.95
Supplier:	Sherston Software, Angel House, Sherston, Malmesbury, Wiltshire SN16 OLH
Tel:	(+44/0) 01666 843200
Fax:	(+44/0) 01666 843216
Web:	www.sherston.com
E-mail:	sales@sherston.co.uk

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ViewFinder. The high performance graphics card for the Risc PC. For more information : http://www.windfall.nl. Available in the U.K. from CJE Micro's (http://www.cje.co.uk).

Thin wars

Neil Farnham-Smith compares the relative merits of the NC solutions available

Over the last three years I have been involved in installing and maintaining large networks of Acorn Network Computers (NCs). I previously worked at Alsystems — one of the old Xemplar Agents for Hampshire, Berkshire and Sussex, and more recently have taken on schools' support in the South and started up as Surftec two years ago. I have installed systems based on both common commercial NC frameworks; namely *Topcat* from MicroLynx and *TotalBoot* from Precedence Technologies.

The Acorn Network Computer and its associated technologies are Surftec's main business; few people realise the success this device is having within the education market. The NC remains one of the least appreciated machines in the RISC OS market. It has enabled many schools to continue using RISC OS software while also allowing access to Windows software, giving them the best of both worlds.

What is an NC?

Without covering too much old ground, the Acorn NC (NC1) was developed as a reference design for Oracle (latterly NCI) simply to run Java applications, be a discless machine that relies on a host network to operate and have a compact OS in ROM to initially boot from, a true thin-client device.

Thin-client devices have fewer internal components thus making them cheaper to buy, cheaper to run and easy to maintain. With thin-clients, all the software is held on the server which means when new software needs to be installed, it only has to be installed on the server and will then be available to all the clients.

Fat-clients, on the other hand, rely on their own internal configuration and storage, they have moving parts which are prone to failure. Machines with their own configuration often start mutating their own unique oddities, which then requires individual attention from an IT Technician, which costs money. New software has to be installed on each and every system, automated scripts can be created to make the task less labour intensive but it is still prone to failure.

The Acorn NC is not the only thin-client on the market. Fujitsu, IBM and Compaq to name just a few all make their own thin-client machines. The bonus for the RISC OS market that is that Acorn NCs have a fully functioning operating system built in — NC OS, which can run the large majority of RISC OS applications that will run on an A7000+.

This means they are ideally suited to being used alongside RISC OS desktop computers or in mixed environments. As the Acorn NC can run software locally (even if that software is stored elsewhere), it is not a strict thin-client, except when it is running Window applications (in which case only mouse, keyboard and graphics pass between the client and the server).

NC solutions generally rely on a server running some form of Unix-like operating system (for example Linux, BSD, Solaris) or a Windows NT server. To provide Windows capability you will need a Windows Application Server running Terminal Services (RDP) or Citrix MetaFrame (ICA). Both Microsoft and Citrix recommend that the application server is not providing any other functions such as file/print sharing.

NC solutions

Two major competing products are available to operate a network of Acorn NCs; *Topcat* and *TotalBoot*.

On booting up *Topcat* installs as an extra to NT 4 Server or NT 4 Terminal Server with Citrix MetaFrame, giving either server the functionality to boot an NC into RISC OS. The NCs must be programmed to support Microsoft's proprietary SMB protocol; companies supplying Acorn NCs will generally offer them programmed to your specifications.

TotalBoot is a suite of software that allows an NC to boot, however the suite is not restricted to just one server platform. *TotalBoot*'s usual guise is in the form of a Unix-like NetBSD box (running on either a StrongARM CATS or Intel Pentium Server). However, it is also available as an NT server version (much like *Topcat*), with Zip disc or even CompactFlash allowing NCs to be taken away from the network without needing a bulky server.

What's in Topcat?

Topcat provides a network of NC's with much of the functionality of a regular RISC OS desktop — essentially as *Topcat* includes a licence for RISC OS 3.71 for use on NCs, this includes a choice of browsers, Acorn Applications; *Draw*, *Paint* and so on, *OmniClient II* site licence, *Printers* and *ICAClient*. *Topcat* provides a mechanism to log onto the network, but this is somewhat basic so usually *Topcat* is supplemented with Atomwide's *NTFiler* or Precedence *TotalFiler* software to allow extra mounts to be configured when users log-in.

Topcat is also a useful product for booting existing networks of Acorn RISC OS machines directly from an NT Server, which has obvious speed advantages over an old Level 4 server. *Topcat* is like *ShareBoot* but for NT and has all the extras to allow the machines to operate on an NT network.

Configuration of the NCs is much like any other Acorn RISC OS machine. Icons can be placed on the backdrop, such as an ICA file. Its features almost stop there, however for a keen Acorn hacker it is an ideal starting ground to build a customised solution.

Topcat is versatile enough for it to be used in business as well. E-Mail can be added by using an external Web-based e-mail system, such as HotMail, or e-mail client/additional services need to be installed on the NT Server such as *Marcel* and *Exchange* (which is not cheap). Alternatively, many schools use a Unix server as an e-mail server (such as the Precedence *NetManager* or Navaho server).

What's in TotalBoot?

TotalBoot was the original boot sequence available for the Acorn NC (it was originally part of a solution from Xemplar) and was first exhibited at BETT '97. *TotalBoot* has been designed from the ground up as an education system.

Once the NC has booted the user is greeted with a log-in screen, nothing else can be done until the system has been logged into. This is in contrast to *Topcat* where client applications can be used without the user identifying themselves. Once the user has logged in, that's it. The user's username and password are stored for future use during that session, so entering e-mail or Windows does not require the user to log-in again.

TotalBoot is more session-based than *Topcat* which reflects its education bias. *Topcat*'s method of free access and the ability to identify oneself only when required is useful for public access terminals. In the classroom, it inherits many of the limitations from it's RISC OS desktop parent.

Users can run multiple copies of applications and then leave forcing the next user to have to reboot or tidy up. With *TotalBoot*, when you log out (which can be done simply by pressing the standby button on the front) all applications started during your session are quit. *Browser* histories, favourites and cookies are also reset. This means that the client is in known state when the next user approaches.

TotalBoot also provides a full productivity suite (*NCWorks*) which includes database, spreadsheet, word processor (Word and HTML compatible), graphing, drawing, painting and a JavaScript web-browser. This has been covered in previous *Acorn User* issues (January 2001).

It also provides a RISC OS compatibility mode into which the user can drop at any time. This gives a familiar RISC OS desktop but with unnecessary or insecure functionality refused (access to a command line, for example). Icons on the iconbar can be user-defined and placed where desired.

When used with the usual Unix server solution, *TotalBoot* provides a lot of additional features over *Topcat*. This is mainly because a UNIX server has more functionality than a Microsoft NT Server, such as IMAP (e-mail), Apache (Web server/proxy), CD Serving and a whole set of licence free Internet facilities.

It also includes a custom-written User Management suite that can create from a one-off user to a whole year intake from a SIMS database on both the UNIX server and any additional NT servers such as a Citrix Metaframe server. In addition, new NCs will be dynamically configured (whereas with *Topcat* each NC needs to have it's unique ID entered on the server).

The *TotalBoot* system includes Web-based administration, for setting up and administration of all the server functions, such as Web Serving, Proxy, Web Filter, E-Mail Filter, Printer Queues, Printer Setup and a host of RISC OS utilities for configuring the RISC OS side of the NCs.

For example, configuring which NC prints to which printer is all administered using a simple RISC OS application. I understand that Precedence are considering releasing this as a upgrade product for *Topcat* which does not have such functionality.

Summing up

Both systems function well. *Topcat*'s functionality is mainly limited by it's reliance on only one type of host server. Windows NT does not provide many network services and adding such services is generally expensive; licences have to be purchased for most things, including e-mail, proxy, quota management, bulk user management and so on.

If you are only wishing to run Windows on your NCs (you do not wish to run RISC OS), there is nothing to choose between *Topcat* and *TotalBoot*. They both provide the same functionality. If any Internet services are required, I would tend to use a *NetManager* and then add *TotalBoot* to that in line with Microsoft and Citrix's guidelines on reducing the tasks being performed by an application server.

I have installed both systems, and for the main part have chosen to install *TotalBoot* the majority of the time. This is partly due to the ability to use a very reliable, cost-effective and feature-rich server operating system (Unix) which enables schools to get better functionality for their NCs.

Topcat gives the user a room of RISC OS clients as if they had just come out of the box fresh from the factory, whereas *TotalBoot* provides a suite of software and management tools so little or no configuration is required, the network needs a name, IP address and its ready to run.

Note: Technical information and specification regarding both Topcat and TotalBoot gained from the respective software authors web sites as of 3rd May 2001. END

Product details

Product:	TopCat
Supplier:	Microlynx Software Eng Ltd, 27a Granta Close, Witchford, Ely, Cambs CB6 2HR
Tel:	+44 (0)1353 668976
Fax:	+44 (0)1353 668737
Web:	www.microlynx.co.uk
E-mail:	sales@microlynx.co.uk

Product details

Product:	TotalBoot
Supplier:	Precedence Technologies Ltd, 86 Kings Hedges Road, Cambridge CB4 2PA
Tel:	+44 (0)1223 562500
Fax:	+44 (0)1223 563522
Web:	www.precedence.co.uk
E-mail:	sales@precedence.co.uk

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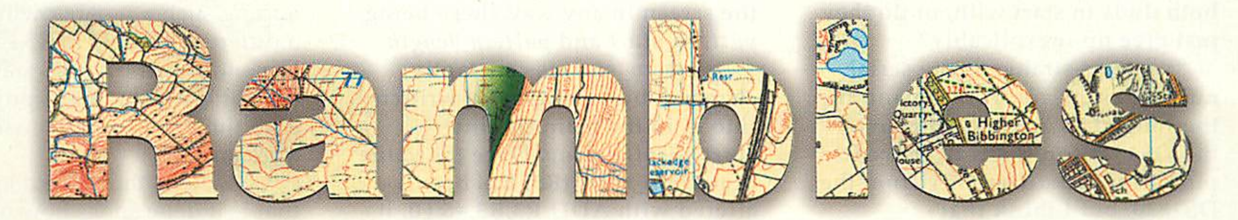
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RISC OS



Mike Cook buys another round for RISC OS users

First a bit of feedback from Andy Turton, if you remember he was having trouble with installing *Destiny*, this time he's cracked it, he writes:

I "I booted my Web Wizard holding down Shift and tried to install *Destiny* again. Bingo! It must have something to do with the read/write from the DVD that Castle put in the machine. Some of the files had been read as plain data when they were not of a data type. It appears to read and write more slowly when the *!Boot* sequence hasn't been seen. I've put the RISC OS 4 patch over the top and I've got a bit more playing around to do, but it does work now. Many thanks for your help Mike."

Now David Braine is having a bit of a problem with *Draw*:

Q "I hope that you can help me with the following problem that I'm encountering with *Draw*. I use a Risc PC 600, OS 3.6, 21Mb RAM, 210Mb HD. I installed Castle Technology's *Oregano* browser recently, along with all the other software that comes with it. I mention this because the problems have only started since then.

"When I now use *Draw* I keep getting error messages, arising when I use the main Menu system, usually in the 'Paper Limits' and 'Style' sub-menus. The most common error message is: 'Internal error, no stack for trap handler: Message token Message token Message token Message token Message token....'.

"When cancelled, this is replaced by 'Internal error: abort on data transfer at &02215B98'. This message won't cancel, so I have to reset. The other error is generally: 'Application may have gone wrong. Click continue to try and resume or quit to stop application'. This then leads to: 'Internal error: abort on data transfer at &02215F98'."

A I have not come across this before but the first thing to try would be to increase the memory allocated to *Draw*. As it is in ROM you can't alter it directly, however all you need to do is to drag it from the Apps directory onto your hard drive. Then change the WIMPSlot from 32K to say 64K in the *!Run* file.

Also check that you have some spare capacity in the system heap, I know this should be automatic but try dragging the bar to allocate more memory here. This is really one for Castle, I hope you get a response from them, if you do then please let me know. And so he did and this is his reply:

I "Thanks for your reply. Changing the wimp slot didn't work I'm afraid, I found, with help from Castle that there is something wrong with the !Boot. Switching on with Shift held down and everything works fine. So further investigation revealed the problem. It turned out to be caused by a small app in my Boot Tasks.

"Something in the Oregano installation was obviously causing some interference. The app was *!3DRomPatch* which came with one of the *!Boot* installations off a CD. Anyway having got rid of it, everything is now OK."

Matthew Phillips is having a bit of trouble with the 1-Wire Bus project, after a few exchange of e-mails he made some progress:

Q "At first I got nowhere but thinking that maybe a component or two had been bust as a result of my soldering abilities, I made up the whole circuit on a small piece of bread board, and it worked fine with one of the two serial number chips I had bought.

"I then desoldered the other from the circuit I had made on veroboard, and that worked fine also, indeed they both worked at the same time. The Zener diodes also puzzled me. There was a volts rating given, but also a watt value. I had no idea what wattage I needed, so I went for 5W, as they seemed fairly cheap.

"It turns out that the temperature chip you used is no longer made, but Dallas Semiconductor are bringing in a new compatible one called the DS18S20 instead. Farnell don't have this yet, so in the meantime I have ordered the reasonably similar but less accurate DS1821.

"The two thermometer parts (DS1821) did not work at all though. Since neither had been soldered and one had not been taken out of the anti-static bag before, I am a bit puzzled. Is it normal for this sort of component

to fail in this way? Were they both duds to start with, or do they just give up inexplicably?

"It seems strange if the serial number chips are working and the thermometers are not. Of course, the DS1821 could always have its pins arranged differently from the DS1820, but I think that's unlikely. I'd better get the data sheet for it anyway. Farnell do not seem to stock the new DS1820 replacement, the DS18S20, yet."


The zener diode power rating is not critical as you can't get enough current out of the serial port to blow even the smallest diode, to find the power you need multiply the current by the voltage and double it for good luck.

You can get all the 1-Wire bus data sheets from:
www.dalsemi.com/datasheets/pdfindex.html

The DS1821 can't be powered passively from the bus like the DS1820 so you will have to supply them with a separate 5V supply. That will explain why you can't get them to work.

The DS18S20 is a lower range version of the DS1820.

DS1820 -55 to +125 C with 20 mS conversion time.

DS18S20 -10 to +85 C with 750 mS conversion time.

Otherwise they are the same.

Gavin is still puzzling over machine code, this month it's on the Web site so you can all follow what is going on in this machine code tutorial:


"I'm still battling away with that program. Thanks to you, the R8 mystery is no longer a mystery, as I figured that I basically hadn't been looking at the name of the routine: wait_for_key, the problem being that I forgot that the routine was only executed when a key was pressed.

"Anyway, this solved, I have now tried to understand the program properly and have come up against a barrier. The program uses two particular variables which are not directly related to the screen in any way, these being *pattern_start* and *pattern_length*.

"*Pattern_start* is constantly changed, by having bytes written into it, in the main routine *start_display_loop*. Once the value of *pattern_start* (R3) has been altered with ADD R3,R3,#&F0, it is then added to R0, the screen base address, therefore the changes affect the screen.

"I don't understand that unusual variable: *pattern_length*, which appears to me to be a loop counter for *pattern_start* to use when plotting. Why does it require LDR and STR in the *wait_for_key* routine, to function correctly or at all? If it was a simple counter, an incrementing or decrementing variable, it should only require *MOV R0,pattern_length* to be used, as opposed to *LDR R0,pattern_length* and *STR R0,pattern_length*, so what is going on?

"I think the reason that I am having so much difficulty in understanding this program is because I don't fully understand exactly how LDR and in particular how STR work, can you give me an explanation of these, in relation to the two variables I have mentioned? Also in the instruction *STRB R3,[R0],#value* — what do those square brackets do?"


The square brackets tell the computer / compiler to use not the value in R0 but an address that is to be found in R0, this is called indirect addressing. The #value is a number to add to R0 once the instruction has been carried out (update R0 for next time)

The program works in mode 13, in this mode one byte corresponds to one pixel. The number in that byte will therefore determine the colour. R3 is register that is used for this, after storing it on the screen it is altered to a new value, hence new colour by adding &F0 to it.

Remember it is a 32-bit register but when we store the byte we only use the lowest 8 bits of it. So adding such a number will produce a different number in R3 each time. Depending on what R3 started with the pattern of numbers produced each time you add &F0 will be different.

Now R2 is the pattern length, that is it determines how many times you should add &F0 to R3 before starting over again. When this counter reaches zero it reloads both the original value of R3 thus kicking off the same sequence of numbers again or pattern and R2 the number of times to add &F0.

Now you could do this with a *MOV R2,#10* but then if the pattern length was changed as a result of you pressing a key it wouldn't change in this routine. The point being that a MOV will move a value into a register. This value is fixed at compile time and then can't be altered while the machine code is running.

A LDR instruction puts a value into a register, this value is not a constant but is the contents of a memory location. If you change the contents of that location during the execution of the program the next time you execute the LDR instruction you will load in a different number. You need this because your key presses can alter these locations.

The STR does exactly the opposite, it puts the contents of a register into a memory location, a 32-bit value. STRB stores only a byte in memory. Remember that a 32-bit value takes up 4 address locations as addresses are in bytes.

In the *wait_for_key* routine you need to use R1 to tell the *OS_Byte* call what to do. So you have to use different registers to load the pattern length value into, modify it depending on the key press and then store it back in memory so your screen filling loop can pick up on the new value.

Contacting AU

Mike Cook:
rambles@acornuser.com

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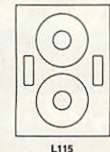
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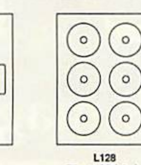
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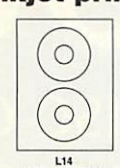
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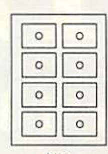
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What do we

I have just been reading the sample findings of the RISCOS Ltd user survey. Generally, what people seem to want come under just a few simple headings.

Programming: On-board support for programmers writing in C++, Java, Visual Basic. So we need comprehensive libraries, some decent compilers and built-in file recognition. Some of this could be met through third party software, although close collaboration with RISCOS Ltd is needed.

Internet: Many people still find connecting their RISC OS computers to the Net troublesome. However, I do not believe this is down to RISCOS Ltd. to sort out. *Dial*-Up from R-Comp is excellent, though I must admit I still fall out with *POPStar*, when I have to set it up sometimes. *Oregano* gives us everything we need — OK, it's not as big as IE, but we have to start somewhere and it is being actively developed.

What RISCOS Ltd. should do is strike a deal with some of these commercial apps and ship them as standard with RISC OS with built-in file recognition.

Graphics: One thing I have always liked about the Acorn/RISCOS computers is their ability to handle graphics and sound without needing extra hardware or software installed.

However, I do agree with the people who are getting a little frustrated at the lack of universal movie file types supported by RISC OS. We can view any image, but movies are different. I would like to see support for QuickTime built-in to RISC OS, as it is now used in Macromedia's authoring package for a lot of Education software.

Although RealMovie would be good as well, I think there is more of a future in QuickTime (being used on the Mac as well) and this is where we should focus.

Sound: This has always been good on our computers, even back in the days of the BBC B. I have been really impressed, lately, with the sound quality from the 56MHz RiscStation (equals any PC I have ever heard). It has lead me to invest in some decent speakers for my Risc PC which now sounds superb.

General findings seem to be that people want standard sound support. There is loads of software for sound out there, MPEG, WAV, Replay, Midi: I think some should now be built into RISC OS. A new version of Replay would be good as a native movie/sound format. Could this be enhanced to allow conversion to QuickTime and MPEG3? This would give us everything we need then.

Software: Comments about 'we need more software' are daft. Primarily because they have nothing to do with RISCOS Ltd, and otherwise because there is a ton of new software being developed.

In the last year (partly shipped with new machines) I have bought: *DrawWorks NM, Fireworkz, PipeDream 4.5, Oregano, Messenger Pro, WebsterXL, DialUp, RiScript, EasiWriter Pro, Ovation Pro, RiscTV, TopModel...* These are top-quality software packages, the likes of which are only to be found on RISC OS, as we are used to buying only the best.

The longevity of RISC OS hardware and software has lead many people to believe that updates are free and only new titles are new. People must start buying upgrades and putting money back into the system. There is loads happening on the software front, if people would open their eyes.

RISC OS is the most productive OS I have used (and I've used a few); it is my favourite. It can be enhanced, but there is little major work that needs to be done (except the 32-bit bit). Someone once said to me that RISC OS was obviously flawed because of the amount of Desktop enhancements you could download from the net.

I don't see this as a flaw. I love the way you can get inside the GUI and tailor it to your own needs. I love the way my computer at home does not look like my computer at school, and, indeed, how each class at school has been able to set up their computers differently.

There are a few things RISCOS

Overpricing for RISC OS

I read the May reply to my April letter in *Acorn User* with interest. However, the prices you quoted for the PC bits were very much over-priced are you an Acorn dealer by any chance?

Yes it is possible to build a fast PC for a little over £300 I have already built seven machines on a similar budget and that's a fact. Check out **www.microlanduk.com** and you'll see that the price of hardware isn't what you'd expect to pay for Acorn parts. If you don't believe me I'll build you one and I bet you'd impressed with the spec.

I want RISC OS to become mainstream not a dead market burying our head in the sand saying that £1K+ is ok for a machine that has no USB, ageing printer handling and lack of scanner support, no DVD, slow network, poor CD-R software, no decent MPEG software or RealAudio, no sound sampling as standard, or webcam — Oregan cancelled it — video capture.

As to your comments about the RiscStation while I agree they are lovely looking machines their inability is demonstrated by both *Amp* and *DigitalCD* applications which fail to play an .mp3 file properly.

Finally they should go back to selling the machines in kit form as well to enable competent users to personalise and build Acorn hardware themselves. This would increase the user (maybe dealer) base and benefit everyone.

Andy Nelson
by e-mail



really want?

Ltd. could do to improve productivity as I have outlined above, but I think much of this could be done by simply building in software that already exists (with the authors' permission of course).

As a teacher, I can never see the point of re-inventing the wheel, so don't rewrite RISC OS, simply enhance it.

One final comment. Some people seem in need of Windows-style hand-holding options, such as a waste-bin and a task-manager that tells you which tasks are active. What? Surely these people know which files are finished with and which aren't; and why do they need a list of active tasks through another application?

A single click on the Acorn/RO4 logo on the iconbar lists everything the computer is doing, far better than any other OS I have used. I think, therefore, the new manuals need to be looked at and published freely! RISC OS is superb and I can't wait for 4.5!

Graham Wootton
by e-mail

Get it interface

As somebody who regularly uses WindowsNT, XWindows, used to use Mac OS and, of course, still uses RISC OS I have been reading the articles about User Interfaces with some interest.

Up until this last one (May 2001) I felt that, although they would naturally seem slightly biased to many of my die-hard Windows-using friends, they have been fairly even-handed and well thought out. However there are a couple of points in this latest article which I take exception to.

Having more than one way to do things is bad and keyboard controls are slow.

With most computers there are two control devices: the mouse and the keyboard. The keyboard requires two hands to operate it properly and the mouse requires the sole attention of your major hand (thus rendering the keyboard clumsy). Moving your hand between the two is slow. Therefore if at all possible it should be possible to do many things with both.

So if I am writing a document and I want a word in bold I would usually have my hands on the keyboard when I come to the word and therefore Control+B would clearly be faster than moving my hand to the mouse and finding the bold toggle button. If on the other hand I am editing a document my hand may well be on the mouse (to select the word) and then it is a case for your stop watch which is faster.

Secondly, your 'mouse controls only' argument assumes your mouse is fully working. I often have trouble with a gammy mouse (not to mention their nocturnal tendencies — you try using a optomechanical mouse in bright sunlight), and I find the option to use the keyboard instead with Windows a life-saver. This is a feature I miss greatly on RISC OS.

That said, I probably do use the keyboard more often on Windows just because everything is so hard to find. Once you have navigated four levels of Start menu a few times you do begin to assign short-cut keys to things.

RISC OS' window resizing is better

First I would like to point out that the RISC OS resize button is not bigger than that of Windows or Mac OS. In fact the illustration at the end of your article shows clearly that Mac OS has square resize buttons on the lower right corner, as do many (although not all) Windows windows.

Secondly, although the window edges may be thin, they are long — which means a much larger area overall. This means that often you do not have to move the mouse as far to find one and, when you do get there, the mouse symbol changes to tell you you can stop trying to aim. This kind of feedback seems to have been forgotten from your article.

Also you can adjust all sides. Many times using RISC OS I have wanted to reduce the size of a window and leave it at the bottom of the screen. On Windows or Mac OS or XWindows this is a non-event, but on RISC OS it requires moving the bottom of the window up and then the whole window down. This is made worse if the resize button is off the bottom of the screen or obscured by another window. I believe there is a program out there which adds such borders to RISC OS windows and if I knew what it was called and where to get it I would do so.

Anyway, ranting over, I fully agree with the observations about wasted screen area, task switching, consistency and the RISC OS max-size feature.

I look forward to the next article — above points aside I think we know which OS will win out in the end.

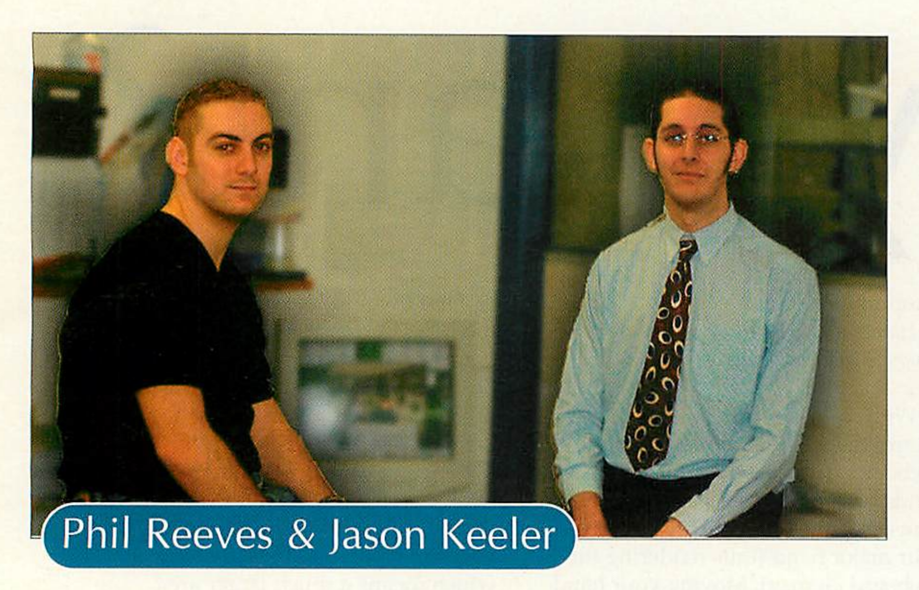
Andrew Stubbs
by e-mail

Spam, spam, spam, spam, eggs and spam

With regards to Len Baker's letter about junk e-mail, here is a possible solution that I came across recently. I received an e-mail recently from **fred@NOSPAMbloggsnet.com**. When I tried to reply the address couldn't be found. To cut a long story short, all I had to do was delete the NOSPAM (obviously really), and then it worked.

So if NOSPAM is included in your address, then that should solve the problem. This supposes that these companies who pick your address off the 'Net or wherever, do it electronically, and don't have a filter to remove the NOSPAM. It also relies on bona fide mailers knowing that they need to remove it prior to replying.

Dave Braine
by e-mail


Phil Reeves & Jason Keeler

From their advertisements in *Acorn User*, Reflex Electronics seems to be an Aladdin's cave of parts and services to the RISC OS market. Yet in spite of them being just a bit down the road from me, I did not really know what Reflex Electronics was about. Time to make amends I thought. Fortunately Phil Reeves and Jason Keeler kindly agreed to talk to me.

> Since Acorn's demise we still continue to offer our services

Both Jason and Phil are technical support engineers for Reflex. Reflex was originally set up in 1995 by David Hughes who is the Managing Director and David Lumley the Operations Director. If their names seem familiar that is because both are former employees of Acorn.

'We provide technical support on Acorn Computers and contractual support for various third party companies. We also repair and service Acorn computers and handle Acorn spares orders'. Chorus Phil and Jason. 'Reflex were chosen by Acorn to handle all their service, repair and technical support relating to their RISC OS machines which includes both warranty and out of warranty repairs, spares, sales, hardware, technical support and often the building of initial prototypes. Since Acorn's demise we have continued to offer these services. Plus we still provide technical support'.

'That's part of what Phil and I do' adds Jason. 'Plus we have stock of a lot of original Acorn spares and we repair computers'.

All the staff at Reflex Electronic's seem to be so genuinely friendly and helpful. I get the feeling that if you require for your machine, no matter old it is, hardware, a spare part, or it needs fixing and if by some slight chance Reflex don't have the part or can do the repair, then they must know a 'man' who can rub a lamp and it appears or gets fixed.

It is a very sweet story. Phil and Jason first met each other when they were literally knee high to a grasshopper. Their shared interests, following Ipswich Town football club and computing, has continued since then.

'We were both brought up on BBC B's. We started using them at primary school — the same school'. Continues Phil.

'We then carried on together with BBC's at secondary school. Towards the end of our secondary school years, the school purchased two A305's running Arthur, the old single-tasking operating system. These A305's were very soon after upgraded to RISC OS.

Nobody else at school including all the teachers, seemed to want to use these machines. Instead everyone else continued to use the BBC's. Jason and I decided to take them over, we RTFMs as they say. In computing terms we have never looked back since.'

Prior to working for Reflex Electronics Jason worked for another Acorn dealer Newton and Brewer. While Phil was working in an administration position. Enough said about that. To keep themselves out of mischief, when not working at Reflex Electronics both Jason and Phil listen far more 'heavy' music than can be possibly good for them. Both of them have a very keen interest in Wimp programming although they very rarely get around to finishing any programs.

Jason is interested in Japanese performance cars and spends a lot of time on his Web site. Phil, on the other hand, spends a lot of time socialising in places where they sell alcoholic beverages and has a tendency to indulgently imbibe.

'How long have you got?' asks Phil when the conversation turns to how good RISC OS is and he begins to wax lyrical.

'The graphical user interface is still light years ahead of anything else out there. Plus there is the added advantage it is still distributed on ROM. The software available is as user friendly as it comes. First on my wish list, would be, to have more quality software to enable us to compete with PC's in more areas.'

'We intend to support Acorn computers for as long as they are around — keep the developments coming people! We also would like to pursue some of our Internet ideas given the time.'

If you need hardware, or have a hardware problem surely it should be just a Reflex re-action.

Jill Regan

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